A STUDY OF ENTREPRENEURIAL ORIENTATION, E-COMMERCE ADOPTION, ORGANIZATIONAL CULTURE, AND DYNAMIC BUSINESS ENVIRONMENT ON TEXTILE SME PERFORMANCE IN PAKISTAN

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UNIVERSITI UTARA MALAYSIA
October 2020

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Submitted By

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Thesis submitted to
Othman Yeop Abdullah Graduate School of Business
Universiti Utara Malaysia
In Fulfillment of the Requirement for the Degree of Doctor of Philosophy

Pusat Pengajian Pengurusan Perniagaan
(School of Business Management)

Kolej Perniagaan
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Program Pengajian *(Programme of Study)*	:	**Doctor of Philosophy (Entrepreneurship)**
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Abstrak

Perusahaan Kecil dan Sederhana (PKS) memainkan peranan penting dalam ekonomi Pakistan. Sektor PKS Pakistan mewakili kira-kira 90% daripada kesemua perusahaan di Pakistan. PKS menyumbang kira-kira 40% dalam KDNK tahunan negara. Dalam PKS, industri tekstil Pakistan menyumbang sekitar 40% pekerjaan daripada jumlah tenaga buruh perindustrian. Industri tekstil di Pakistan pernah menjadi industri berorientasikan eksport yang sangat penting dan merupakan satu sumber utama pertukaran asing. Namun begitu, sejak tahun 2013, Pakistan kehilangan bahagiannya dalam pasaran eksport tekstil antarabangsa secara cepat dan berterusan. Akibatnya, eksport tekstil Pakistan jatuh secara mendadak sebanyak 26.19% pada 2018. Objektif utama kajian ini adalah untuk mengkaji hubungan antara orientasi keusahawanan, penggunaan e-dagang, budaya organisasi, serta persekitaran perniagaan, dan prestasi kewangan dan bukan kewangan PKS di Pakistan. Di samping itu, kajian ini menilai peranan persekitaran perniagaan sebagai penyederhana di dalam hubungan ini. Sebanyak dua belas hipotesis telah dibangunkan untuk menjawab persoalan kajian dan mencapai objektif penyelidikan. Data dikumpulkan daripada PKS tekstil Pakistan yang berdaftar dengan Dewan Perdagangan & Industri Lahore menggunakan reka bentuk kajian keratan rentas. Kajian ini menggunakan teknik pensampelan rawak kelompok peringkat tunggal. Soal selidik diedarkan kepada 520 responden yang dipilih secara rawak daripada populasi. Pemodelan Persamaan Berstruktur Kuasa Dua Terkecil Separa digunakan untuk menguji hipotesis kajian. Dapatan kajian mendapati bahawa penggunaan e-dagang, budaya organisasi, persekitaran perniagaan adalah orientasi strategik yang penting bagi prestasi kewangan dan bukan kewangan PKS di Pakistan. Hasil kajian ini memberikan pandangan penting kepada pengurus pemilik, pembuat dasar dan penyelidik untuk lebih memahami kesan penerimaan e-dagang budaya organisasi dan persekitaran perniagaan terhadap prestasi PKS. Para penggubal dasar harus menggalakkan PKS untuk meningkatkan aliran tunai, keuntungan dan pendapatan tertahan yang boleh menggalakkan institusi kewangan menyediakan perkhidmatan kewangan kepada mereka.

Kata kunci: Orientasi Keusahawanan, Penerimaan e-dagang, Budaya organisasi, persekitaran perniagaan, prestasi kewangan dan bukan kewangan SME

Abstract

Small and Medium Enterprises (SMEs) play an important part in the economy of Pakistan. SME sector of Pakistan represent approximately 90% of all the enterprises in Pakistan. SMEs shared about 40% in the annual GDP of the country. Within the SMEs, the textile industry of Pakistan contributes around 40% of employment of the total industrial labour force. The textile industry in Pakistan used to be an important export-oriented industry and it was one of the primary sources of foreign exchange. However, since 2013 Pakistan is quickly and continuously losing its market share. Consequently, the Pakistani textile exports dropped dramatically by 26.19% in 2018. The main objective of this study is to examine the relationships between entrepreneurial orientation, e-commerce adoption, organizational culture, and financial and non-financial performance of SMEs in Pakistan. In addition, this study also assesses the moderating role of dynamic business environment on these relationships. Twelve hypotheses were developed to answer the RQ and achieve RO. Data was collected from the Pakistani textile SMEs registered with the Lahore Chamber of Commerce & Industries using a cross-sectional study design. The study used single stage cluster sampling method. Questionnaires were distributed to 520 respondents which were randomly selected from the population. Partial Least Squares Structural Equation Modelling was used to test the study's hypotheses. This study found that e-commerce adoption, organizational culture, dynamic business environment are important strategic orientations for the financial and non-financial performance of SMEs in Pakistan. The results of this study provide important insights to owner-managers, policy-makers and researchers to further understand the effects of e-commerce adoption, organizational culture and dynamic business environment on SMEs performance. Policy-makers should encourage SMEs to improve their cash flow, profit and retained earnings, which may encourage financial institutions to provide them with financial services.

Keywords: Entrepreneurial Orientation, E-commerce Adoption, Organizational Culture, Dynamic Business Environment, SME's financial and nonfinancial performance

Acknowledgement

With the name of Allah (SWT), the most gracious, the most merciful.

All praise is due to Allah (SWT) for giving me the strength, capabilities and thirst for knowledge to pursue this tremendous endeavour.

Firstly, I would like to express my sincere gratitude to my supervisors, Dr. Sahadah Haji Abdullah and Dr Rosli bin Muhammad Saad for the continuous support during my Ph.D. study and research. She always had a kind word of advice and guided me through my Ph. D through motivation, patience and knowledge. She has been a source of guidance and inspiration which helped me in all the time of research and writing of this thesis. My prayers for the most kind and knowledgeable supervisor in my Ph.D. were definitely answered by Allah (SWT).

Along with my supervisor, I would like to thank my defence committee: Associate Professor. Dr. Norashidah Hashim, Dr. khairul, for their insightful comments and encouragement, but also for the hard questions which motivated me to improve my research from various angles.

I thank my fellow PhD scholars, particularly Dr Aqeel Israr, Dr Naveed Altaf, Dr. Ashfaq Ahmad, and Dr. Muzaffar Asad, for late night discussions on research, teaching, academia, comparative religion and other numerous interesting topics.

Lastly, I would like to thank my family: my father Muhammad Moosa, my mother, Nasreen BiBi, specially my elder brothers Javed Iqbal and Ali Ahmad you sport me like your son, my wife, Samra Abbas and my son, Husnain Abbas Musa. Your support and prayers in countless areas of life and encouragement helped me to get where I am today. I strive to excel in life for all of you.

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List of Abbreviations

SMEs	Small & Medium Enterprises
EO	Entrepreneurial Orientation
E-Com	Electronic Commerce
ECA	Electronic Commerce Adoption
OC	Organizational Culture
BE	Dynamic Business Environment
FP	Financial Performance
NFP	Non-Financial Performance
RT	Risk Taking
INN	Innovativeness
PRO	Proactiveness
EORT	Entrepreneurial Orientation > Risk Taking
EOINN	Entrepreneurial Orientation > Innovativeness
EOPRO	Entrepreneurial Orientation > Proactiveness
GDP	Gross Domestic Product
PSB	Pakistan Statistical Bureau
SBP	State Bank of Pakistan
LCCI	Lahore Chamber of Commerce & Industries
SMEDA	Small and Medium Enterprises Development Authority
WEF	World Economic Forum
TAM	Technological Acceptance Model
PU	Perceived Usefulness
PEOU	Perceived Ease of Use
AT	Attitude Toward use
BI	Behavioural Intention to use
IS	Information Systems
LDC	Less Developed Countries
RBV	Resource Base View
PLS-SEM	Partial Least Squares – Structural Equation Modelling
VIF	Variance Inflation Factor
CR	Composite Reliability
AVE	Average Variance Extracted
HTMT	Heterotrait-Monotrait Ratio
MO	Market Orientation
SEM	Structural Equation Modelling

CHAPTER ONE
INTRODUCTION

1.1 Background of Study

Small and medium-sized enterprises (SMEs) are an essential catalysts for the global economy (Cravo, Gourlay, & Becker, 2012). SMEs are also known as major sources of the employment generation for various countries (Dundon & Wilkinson, 2009). SMEs are widely recognised as an indispensable backbone for the economic growth of many countries of both developing and developed countries through diverse types of businesses as well as innovations and technologies (Rupasingha & Goetz, 2013; Shirokova, Bogatyreva, Beliaeva, & Puffer, 2016). However, there are several issues that affect the performance of SMEs despite their considerable impact on most of the economies (Bhutta, Khan, Omar, & Asad, 2008; Cravo et al., 2012; Haider, Asad, & Almansour, 2015).

Notably, SMEs are economic and social drivers for developing the country's economies (Singh, Rigsby, & Ramgulam, 2017). The present role of SMEs in Pakistan, particularly on its economic development, has become increasingly strategic and important (Subhan, Mehmood, & Sattar, 2013). Given the economic importance of SMEs, SMEs have become an important part of the government's business policy development. Furthermore, the shrinking job opportunities in the market have compelled business-minded employees to look for alternative employment; with that, entrepreneurship appears to be an attractive option (Gimeno, Folta, Cooper, & Woo, 1997). Moreover, financial assistance has now become available for SMEs in the form of individual grants and soft loans from the government (Abe, Troilo, & Batsaikhan, 2015).

The importance of SMEs for the economic development of Pakistan has become indisputable. SMEs are reported to be a primary contributor in providing job opportunities and increasing the country's total economic savings (Kongolo, 2010). Moreover, these SMEs have a favourable impact on regional development and serve as a training ground for industrial workers to enhance their skills. SMEs play an essential complementary role in driving the economic growth of every country (Beck & Demirguc-Kunt, 2006). Over the past few decades, SMEs have accounted for the majority of businesses in Pakistan (Awan, Khattak, & Kraslawski, 2019). For the success of any export industry, the local availability of raw materials as an added advantage becomes a critical factor that lowers the business cost.

Essentially, exports play an significant role in shaping the economy of the world in terms of economic development, jobs and balance of payments (D. Ahmad, Afzal, & Khan, 2017; Fatemah & Qayyum, 2018). For instance, despite the significance of the manufacturing sector in driving the economic development of Pakistan, its exports have remained low for the past few years. Growth in the manufacturing sector declined from 5.6 % to 5.0 %, which influenced the production of its export-oriented sub-sectors, such as textiles, sporting products, medical, clothing, cutlery and furniture (LCCI, 2018). Therefore, the diminishing performance of the manufacturing industry also affects the export performance of the many SMEs in these sub-sectors and results in the trade deficit. The failure to meet the trade quota has become an economic burden. Hence, the SMEs of the manufacturing sector continuously seek different ways to increase the value and quality of their products for higher export performance. Overall, for the manufacturing industry in the current business scenario, the more sophisticated market and changing customer preferences have caused the SMEs to encounter higher competition pressure (Imran et al., 2018).

Accordingly, the textile value chain is a highly integrated and interdependent sector that typically consists of industrial sub-sectors. A value chain can be rather long in this case; the textile value chain begins from harvesting cotton crops to a readymade garment (Jazib Ahmed, 2016). In the report on the textile sector in Pakistan, Jazib Ahmed (2016), highlighted its economic contribution to the country, where the textile sector contributed over 40% of the industrial labour force and GDP of 8.5%. Apart from accounting for 40% of banking credit, the textile sector held approximately 60% of the total export share in Pakistan. The above figures reflect the significance and viable role of the textile sector in expanding the country's economic spectrum (Jazib Ahmed, 2016). However, according to the Ministry of Finance (2019), the Economic Survey of Pakistan revealed a decrease in the exports of textile products from 2017 to 2018 by 26.19%. With the increase of new SMEs, a broad set of skills and resources are required to nurture SMEs into businesses (Tetteh & Burn, 2001).

In Pakistan, the textile sector is considered to be the backbone of the economy. The entire value chain of the textile sector starting from agriculture to exports is a significant contributor to the country's GDP, and employment creation. From the agricultural perspective, Pakistan stands at number four in the ranking of cotton production in the world (Yulin & Qazi, 2018). Furthermore, Pakistan stands at fifth in cotton yarn production and second in global cotton yarn export (APTMA, 2004). With its roots in agriculture, the textile industry in Pakistan is predominantly housed in the province of Punjab, with the district of Faisalabad being the keystone of textile sector housing the majority of textile firms and trade in the country. Faisalabad attracts 20.40% of the national textile sector investment, employs 23.64% total textile labor and 39.80% of country's registered textile industrial units (Yulin & Qazi, 2018). Although Pakistan

has faced severe energy and fiscal crisis, Pakistan ranks eighth in Asia among textile exporters.

Operational Competitiveness can be defined as "the ability of firm to design, produce and or market products superior to those offered by competitors, considering the price and non-price qualities" (Syeda, Asiya, & Takala, 2014). The local industry is unable to sustain and is in desperate need of modern techniques and equipment to contest in an ever more competitive industry. The local production for spinning industry is limited to spindles and ring cups, power looms for the weaving industry, and rudimentary equipment for carding machines (Syeda et al., 2014). Additionally, the textile sector has also been plagued by the recent security, energy, economic, judicial and political issues which has further led to the demise of this important industry. Researchers have posited many curious frameworks and perspectives at firm and industry level. This rise in interest in competitiveness benchmarking has resulted in comprehensive frameworks and data for competitiveness related decision making and importance of processes in enhancing competitiveness (Syeda et al., 2014). However, elimination of Multi-Fiber Agreement (MFA) quotas imposed through World Trade Organization (WTO), the exponential increase in exports of Chinese apparel and textile, and intraregional trade agreements have posed a significant challenge on Pakistani private sector textile manufacturers (R. Ahmad, Bin, & Nordin, 2019).

Therefore, it is imperative for the textile sector of Pakistan to identify and achieve sustainable development. This further gives rise to the reason that companies should utilize multi-focus manufacturing strategies based on their business plan and goal. Business strategy and manufacturing objectives may be bridged by identifying the manufacturing strategies originating by competitive priorities (Syeda et al., 2014)).

The term ‘competitiveness’ has its roots in Latin, which means “involvement in a business rivalry for markets”. In recent years, competitiveness views the rivalry of entities in the global market based on economic strength. Results can be obtained by economic efficiency in the cycle of competition (Kazmi & Naaranoja, 2013). The lack of efforts in cotton sector research & development has resulted in poor quality of cotton, subsequently resulting in low profitability for the farmers. Thus, the farmers have shifted their focus on other cash crops.

Furthermore, lack of modernized equipment has also led to decline of competitiveness in Pakistan textile sector. Outdated technology coupled with energy crisis has resulted in a higher cost of production in comparison with other exporting countries. Pakistan’s textile industry is going through one of the toughest periods in history. Furthermore, the continuous depreciation of Pakistani rupee raised imported inputs cost, further burdening the ailing industry. In addition, inflation and high financing cost has seriously affected the textile sector growth.

Meanwhile, Wiklund and Shepherd (2003), have acknowledged the relevance of entrepreneurial orientation (EO) on the performance of SMEs. EO is essential for the survival and performance of SMEs. Two-thirds of the newly established SMEs were revealed to survive up to two years, while 44% of SMEs were found to survive up to four years, and only about 4% of them overgrew (Storey, 2016). The significant failure rates among the SMEs were attributed to many reasons, including the lack of entrepreneurial practices, mismanagement or limited understanding of risk, marketing problems (Paul, Parthasarathy, & Gupta, 2017), lack of planning (Durst & Aggestam, 2016), limited understanding of the environmental and conditions (Ates, Garengo, Cocca, & Bititci, 2013), and less usage of e-commerce technology (E. Turban et al., 2018).

There are various benefits of e-commerce, including higher sales, lower costs, improved services and support from the suppliers, higher customer satisfaction, and the ability to participate at the international markets (W. Wang & Wang, 2016). Due to these benefits, most organizations adopt e-commerce. However, there are other driving factors that influence their decision towards e-commerce adoption, such as pressure from customers, suppliers, and competitors. The dependence on e-commerce also lies in their desire to strengthen their relationship with business partners or to improve their business efficiency. There are challenges to the e-commerce adoption including security concerns, maintenance costs, extreme reliance on technology and lack of technical support (Meijer, 2016). Nevertheless, despite these disadvantages, the e-commerce adoption has been an overall success and significantly benefits many organizations (Da Costa, 2016). Therefore, SMEs in the textile sector are propelled to explore other factors that can strengthen their e-commerce adoption (ECA) for higher performance efficiency (Fayyaz, 2017; Jazib Ahmed, 2016).

Additionally, not all organizations adopt e-commerce in the same way. There are various ways of adopting e-commerce to clear the differences between an organization and its employees according to its sizes and locations. The business needs of an organization influence the level of ECA and the speed of moving from one level of adoption to the next (Elbeltagi, Hamad, Moizer, & Abou-Shouk, 2016). Similarly, the uptake of ECA by SMEs is lower than the uptake of ECA by other large organizations (Kurnia, Choudrie, Mahbubur, & Alzougool, 2015).

Recently, academicians and practitioners are attending to the issues in performance of the textile sector in Pakistan (Arifin, 2015). Additionally, the global reach has been enhanced by increasing interest in innovation driven business operations. However,

ECA has markedly affected SME performance resulting in an increasing number of organizations depending on Internet and other electronic tools for communication with trading partners, government institutions and (Eid & El-Gohary, 2013). Studies have highlighted a gap in technological communication between customers and organizations. In lieu, barriers such as lack of ICT skills among staff, growing global competition and negative market trends have also been identified (Finzer et al., 2013; Morais, 2006). Besides, e-commerce at the organizational level has rapidly grown to meet the maximum global market share; for instance, an increase of 120% in e-commerce trade in China was reported (Fredriksson, 2013). However, despite the cost significance of e-commerce technologies, Pakistani businesses are reluctant towards adopting e-commerce.

As for the current study, the proposed definition by Deeter-Schmelz and Norman Kennedy (2004), was used to define ECA: "The use of electronic data and applications for planning and executing the conception, distribution, and pricing of ideas, goods, and services to create exchanges that satisfy individual and organizational objectives." The severe geographical and communication segregation has gradually become non-existent. With the growth in technology coupled with globalization, the national economies are fast merging into a global economy (A. A. Sheikh, Shahzad, & Ishak, 2016; Ueasangkomsate, 2015).

Access to global markets has been increased significantly through e-commerce services. The operating organizations provide e-commerce services to approach more customer, communicate with their partners, and develop relationship with government institutions for higher financial strength, market growth, and customer satisfaction (A. A. Sheikh, Shahzad, & Ishaq, 2017).

Besides that, although studies have identified organizational culture (OC) as one of the critical factors that influence the performance of SMEs (Ahmadi, Salamzadeh, Daraei, & Akbari, 2012; Cameron & Quinn, 1999; Denison, Lief, & Ward, 2004; Ogbonna & Harris, 2000; Schein, 2010; Yilmaz & Ergun, 2008), certain studies empirically reported contradictory findings, which may be due to the adoption of different measures of OC. Such inconsistency makes interpretations and comparisons difficult. In addition, most of the prior studies that assessed the impact of culture on organizational performance focused on the emerging and developed economies (Denison et al., 2004; Esparza Aguilar, García Pérez de Lema, & Duréndez Gómez Guillamón, 2010; Hajipour & Ghanavati, 2011; Ogbonna & Harris, 2000; Yesil & Kaya, 2013; Yilmaz & Ergun, 2008; You, Coulthard, & Petkovic-Lazarevic, 2010). However, similar studies that focused on developing economies have remained somewhat limited.

As previously highlighted, SMEs are vital for transitional and less developed economies. Hence, it is imperative that studies continuously suggest different ways to increase the survival rate of SMEs. Financial and non-financial rewards have been found to be a source of motivation for the employees, resulting in higher SME performance. The development of an appreciation culture results in a positive employee behaviour and loyalty (Daniel & Metcalf, 2005). According to Pinder (1984), the culture of motivation within an organization can be expressed as a dynamic force at the individual level due to the internal and external factors, resulting in the formation of commitment towards work and work-related behaviour.

Adding to that, the present study also discussed the magnitude of work-related behaviour. Necessarily, owners or managers should identify the strengths of employees to maximise their work-related responses. Motivated employees play a pivotal role in

realising the overall success of SMEs. The definite link between the commitment of SMEs and the satisfaction and motivation of employees subsequently increases the productivity and performance efficiency of SMEs (Yousef, 2000).

Meanwhile, Islam, Khan, Obaidullah, and Alam (2011), identified dynamic business environment (BE) as an essential factor that drives the economy of a country. Severe infrastructural deficits, particularly in terms of power supply, quality of materials, and entrepreneurial practices, add complexities to the expansion of developing economies. These aspects have collectively added burden to the SMEs in Pakistan. These SMEs do –not have supportive BE, as the imports dominate the overall economy. Furthermore, there are also security challenges that have not been addressed. Therefore, it is critical to explore strategic factors that can enhance the survival rate of SMEs in a challenging BE (Dar, Ahmed, & Raziq, 2017).

In view of the above, SMEs require urgent attention in light of these issues as they generate employment for the masses and are excellent avenues to improve economic growth, particularly for countries with high unemployment and poverty figures (Bradshaw & Main, 2016). Improved performance of SMEs is essential for the economy of Pakistan (Khalique, Bontis, Abdul Nassir bin Shaari, & Hassan Md. Isa, 2015).

Additionally, the findings on the moderating role of BE in these relationships have remained inconclusive and should be tested (Andy, Lumpkin, Praveen Parboteeah, & Stambaugh Jeffrey, 2019). Last but not least, most of these past studies that assessed the performance of SMEs focused on developed economies. However, in Pakistan, only a few studies empirically explored the influence of ECA on the performance of SMEs,

particularly on the influence of EO, ECA, and OC as well as the moderating role of BE on the performance of SMEs.

1.2 Problem Statement

Pakistan's textile export share rapidly loses to the regional countries in the international textile markets (Pervaiz, 2015). In 2018, the textile exports of Pakistan recorded USD 10.042 billion, whereas the textile exports of the regional countries recorded double-digit growth. The Economic Survey of Pakistan (2018) revealed a drop in the textile exports of 26.19% from (USD 13.606 billion was in 2017).

The textile sector has the longest production value chain with inherent potential for value addition at each stage from growing to ginning, spinning, weaving dyeing and apparel. Nature of the industry and significance to the local economy determines the choice of the textile sector in Pakistan. The textile sector contributes approximately one-fourth of the industrial value-added. Since all the stages across the textile value chain are labour intensive, the sector provides employment to 40% of the industrial labour force. Additionally, the export-oriented nature of textile makes this sector as a highly lucrative industry for the country and contributes to 55% of the national exports. The demand of the finished product is high in both national and international markets (Wadho & Chaudhry, 2018).

The textile sector supposedly serves as the backbone of Pakistan's economy and is one of the important sectors in the country with its contribution of more than 50% in terms of GDP and exports (Asad, 2012; Bashir & Asad, 2018). In the global market, Pakistan's textile sector recently demonstrated a drastic decline in growth (Asad, 2012; Bashir & Asad, 2018). Reportedly, the overall growth of the textile sector in Pakistan

appeared to be stagnant whereas other countries such as Bangladesh, China, and India were found to maintain their position the textile sector in both China and India were ranked in the top three (World Trade Organization, 2018). Figure 1.1 shows the whole textile export of Pakistan from year 2011-2018 (Ministry of Finance, 2017). Yet, more than 90% of business in Pakistan are in SMEs category (Khan, Ghouri, & Studies, 2011; SMEDA, 2016).

Figure 1.1 Textile Exports of Pakistan 2011-2018 (Ministry of Finance, 2017).

In another context, entrepreneurship through SMEs serves as one of the key elements that drive the economic development and growth for most countries (Hodi et al., 2010). Entrepreneurs stimulate economic activities in pursuit of their vision. They identify unique opportunities that drive their pursuit towards realising their vision. These entrepreneurs can either form new enterprises or contribute significant value to the existing enterprises through innovation. In most cases, they may apply these different operation means interchangeably as owners of SMEs, they should focus on starting new businesses with their EO activities involves pro-active, risk-taking, and innovative decisions (Leitch & Volery, 2017). Today, SMEs are seen more than ever as a vital

source of entrepreneurship in terms of employment, social, and stability as well as innovation and competition (Ferreira, L., & Thurik, 2015).

Besides that, EO and its influence on the performance of SMEs have also received substantial attention when it comes to the context of exports (Chen, Sousa, & He, 2016). Due to the changes in the BE, given the dynamic nature of exports market, the significant influence of EO on the SME performance has become increasingly important to establish sustainable competitive advantage (Thanos, Dimitratos, & Sapouna, 2017). EO exhibits the capacity to reform the production process and promotes the adoption of innovative practices and the establishment of new outlets for products and services (Zehir, Can, & Karaboga, 2015). SMEs with potent EO tend to perform better (Sahoo & Yadav, 2017). Nevertheless, the success of the EO implementation depends on the attitude, commitment, experience, and knowledge of the owners or managers of SMEs (Wiklund & Shepherd, 2003). Numerous past studies proved the significance of EO (Hernandez-Perlines, 2018; Sok, Snell, Lee, & Sok, 2017; Thanos et al., 2017). However, Frishammar and Åke Hörte (2007); Frishammar and Andersson (2009), revealed its insignificant influence on the performance of SMEs. Although, from practical perspective the poor performance issue of SMEs through EO due to the lack of other strategies and practices (Al-Dhaafri, Al-Swidi, & Yusoff, 2016; Sahoo & Yadav, 2017).

Studies have revealed different aspects of the performance of SMEs. Alegre and Chiva (2013); Hean Tat, Nguyen, and Hwei Ping (2007), suggested to conducting more research on EO. According to (Abebe, 2014; Wang, Thornhill, & Julio, 2017), SMEs were also proposed for further investigation given the lack of EO practices (Wang et al., 2017). EO was examined as a multidimensional composite construct that represents

the capability of SMEs to exhibit pro-active, risk-taking, and innovative practices (Chow, 2006; Covin & Slevin, 1989a; Hughes & Morgan, 2007).

Entrepreneurial Orientation was introduced by (Miller, 1983) with three dimensions, same view upgraded by (Covin & Slevin, 1989a) in their book. Yet, EO was upgraded with two more dimensions i.e. competitiveness and autonomy (Covin & Slevin, 1989a), tested and proves five dimensions of EO "risk-taking, pro-activeness, innovativeness, comparative aggressiveness and autonomy". However, competitiveness and autonomy are more related to large organizations. Therefore, due to study conducted on SMEs that's why this study measures EO with three dimensions (Arshad & Rasli, 2018).

Most studies have identified EO as an essential factor that influences the performance of SMEs (Amin, Thurasamy, Aldakhil, & Kaswuri, 2016; Fairoz, Hirobumi, & Tanaka, 2010; Mohammad Ibrahim & Mahmood Rosli, 2016; Rauch, Wiklund, Lumpkin, & Frese, 2009b). On the contrary, certain past studies found the insignificant relationship between EO and the performance of SMEs (Alegre & Chiva, 2013; Anderson & Eshima, 2013; Hughes & Morgan, 2007; Lechner & Gudmundsson, 2014) along significant relationship of EO with financial & non-financial performance (N. U. Khan, Shuangjie, Khan, & Anwar, 2019). The inconclusive findings on the influence of EO on the performance of SMEs as well as the proposed recommendations from past studies to further explore the significance of EO demonstrated the imperative need to assess EO as an important construct.

Evidently, the development of SMEs is a global trend. The rapid progress of e-commerce, particularly the internet, has become an essential source that prompts many changes in developing and developed countries of diverse backgrounds (Ekrem, Ismail,

& Lenny, 2016). For several industrial sectors, including the services and manufacturing sectors, the e-commerce adoption has proved to effectively decrease the problems of distance and lack of local services (Hearn, 2016). ECA is seen as a solution for business growth. The effectiveness of ECA varies across industries (Giuffrida, Mangiaracina, Perego, & Tumino, 2016). The adoption of e-commerce within these SMEs is considered as means of survival and growth, particularly in an increasingly competitive environment. states that in china 70% of online sale orders come from other countries. Yet, past studies appeared to solely focus on the role of e-commerce in large organizations, only a few studies discussed the significance of e-commerce on the performance of SMEs in Pakistan (Haroon, Qadir, & Zaman, 2017).

Studies have discussed the advantages of using modern technology in enhancing the performance of SMEs in terms of customer loyalty, financial performance, market share and productivity (Lopez-Acevedo & Gladys, 2002; Lucia Palacios, Bordonaba Juste, Polo Redondo, & Grünhagen, 2014; Sürer & Mutlu, 2015). Studies have also described that the adoption of technology improves efficiency and effectiveness Sabbaghi and Vaidyanathan (2008), resulting in lower operational costs (A. A. Sheikh et al., 2017). After all, the performance of the industrial sector in a country reflects its economic engine and contribution to global economic development.

However, only a few studies empirically proven the positive impact of ECA on SME performance in terms of financial gain (Johnston, Wade, & McClean, 2007), competitive advantage (Teo, 2007; Teo & Pian, 2003) and growth (Mohamad & Ismail, 2009; Raymond, Bergeron, & Blili, 2005). The benefits of ECA across different sectors were reportedly inconsistent according to the sizes and regions (Johnston & Wright, 2004). Focusing on the same perspective, the realised benefits were positively related

to ECA (Raymond et al., 2005; Sam & Leng, 2006). Despite the discussed arguments, the influence of ECA on the performance of SMEs was deemed noteworthy (Khan, Liang, & Shahzad, 2014; Mohan & Ali, 2019; Safa & Ismail, 2013; Sanchez & Juarez, 2019; Sheikh & Basti, 2015).

According to, Voola, Casimir, Carlson, and Agnihotri (2012), Lucia Palacios et al. (2014), and Sanchez and Juarez (2019), ECA can increase the performance of an organization, which is deemed necessary for the Pakistani SMEs, particularly in the textile sector. Furthermore, Iddris and Ibrahim (2015), recommended the need to establish a relationship between ECA and SME performance. Therefore, the current study aimed to assess the impact of ECA on SME performance in Pakistan, where its Internet growth appears lagged (Sheikh et al., 2017).

Additionally, previous studies focused on either large organizations or SMEs in other sectors. The textile sector has been overlooked. Thus, it was deemed imperative to obtain empirical evidence of other factors that influence ECA and its relationship with the performance of SMEs (Sher Ayub, 2016). It should be noted that the enhanced performance of SMEs cannot be solely achieved through the ECA as a means to cut cost (Turban, Efraim, & David, 2015). Undoubtedly, ECA is a critical issue, especially for SMEs in developing countries. E-commerce adoption has been regarded as one of the essential factors that determine the success of various organizations, especially for SMEs (Knight, 2010). This approach reflects the assumption that SMEs need to adopt e-commerce to be successful.

On the other hand, studies have identified OC as another factor that directly influences the performance of SMEs based on the assumptions that it affects the behaviour of the

members of an organization (Albarracín & de Lema, 2011; Gálvez Albarracín & García Pérez de Lema, 2011; Martins & Terblanche, 2003). Furthermore, resource-based view (RBV) theory posits that OC is a primary source of sustainable competitive advantage due to its value, rarity and difficulty in imitation due to complexity of characteristics (Coyne, 1986). The study concluded that adaptability is a better predictor of financial performance in comparison to stability. Nevertheless, it is imperative that organizations establish a reward and recognition system to motivate its employees. Although tangible and intangible rewards have been associated with employee motivation resulting in SME performance, it is suggested to offer a balance of tangible and intangible rewards which are realistic, meaningful and relevant to motivate the employees (Daniel & Metcalf, 2005).

Although researchers have addressed the relationship between OC and SME performance, the studies are few and far between (Shafiq, Lasrado, & Hafeez, 2019). Shafiq et al. (2019) have suggested that OC in the textile sector of Pakistan can have a positive impact on SME performance. Even though the textile sector of Pakistan is competitive at the global level, energy crisis the country is facing has brought a drastic change in the performance of its textile sector. SMEs are improving on process and planning to reduce costs and improve productivity through innovation and OC. However, the desired results may not be achieved without a strategic alignment between goals, rewards and recognition system and inducing a culture that promotes employee committement (Saqib, Abrar, Sabir, Bashir, & Baig, 2015).

In general, several past studies provided evidence on the positive relationship between OC and performance (Deshpandé, Farley, & Webster, 1993; Dwyer, Richard, & Chadwick, 2003; Ogbonna & Harris, 2000; Polychroniou & Trivellas, 2018;

Valmohammadi & Roshanzamir, 2015). Using a similar approach, Aketch, Basheka, and Bagire (2017), Jardioui, Garengo, and El Alami (2017), recommended to further explore the relationship between OC and SME performance.

Similarly, Sheikh et al. (2017), also highlighted the importance of BE in evaluating the performance of SMEs. Studies have discussed the positive relationship between BE and the performance of SMEs (Islam et al., 2011; Otache & Mahmood, 2015; Shigang, 2010; Zulkifli-Muhammad, Char, bin Yasoa, & Hassan, 2009). Hypothetically, BE appears to be a potential moderating variable that can affect the relationship between EO and SME performance (Awang et al., 2009; Fairoz et al., 2010). After all, past studies specifically recommended to further explore the role of BE in the relationship between EO and performance (Andy et al., 2019). Whereas the moderating impact of BE in this exclusive relationship was also suggested (Zafar, Hafeez, & Shariff, 2016).

However, the supportive role of BE in influencing the relationships of EO, ECA and OC with the performance of SMEs remains unexplained in literature. In line with the suggestions of Rosenbusch, Rauch, and Bausch (2013), Al-Swidi and Mahmood (2012), Fairoz et al. (2010), BE was postulated to moderate the relationships of EO, ECA, and OC with the performance of SMEs.

According to Jasra, Hunjra, Rehman, Azam, and Khan (2012), SMEs are flexible due to their size which allows them to adopt e-commerce, materials, and products faster than large organizations. However, SMEs in Pakistan demonstrate poor performance, which put them at a disadvantage, due to limited resources, environmental factors, ineffective entrepreneurial abilities, and lack of advanced e-commerce (Dhamija, 2016; Gupta, Guha, & Subramanian, 2013). Furthermore, the relationships of EO, ECA, and

OC with SME performance in developing countries like Pakistan have been inadequately explored, particularly for the textile sector in Pakistan. Most of the past studies were conducted in developed economies and focused on large business organizations (Herath & Rosli, 2013; Wales, Wiklund, & McKelvie, 2013).

Based on the discussed practical and theoretical gaps, this study focused on the following problems:

1. The poor performance of SMEs, particularly in terms of textile exports for Pakistan (Irshad & Xin, 2017);
2. Poor adoption of e-commerce among the SMEs in Pakistan's textile sector (Syed & Shaikh, 2012);
3. Unfavourable OC for the employees of SMEs in Pakistan (Zafar et al., 2016);
4. The significant failure rate for SMEs in Pakistan (due to the lack of EO and ECA as well as unfavourable OC and BE);

The influence of the above factors on the performance of SMEs in Pakistan's textile sector remains unexplored, which were explored in the present study. Considering the inconclusive findings on the relationships between the aforementioned factors and SME performance, it is plausible to evaluate the presence of a moderating variable (Baron & Kenny, 1986), specifically the moderating impact of BE in the context of SMEs in Pakistan's textile sector.

1.3 Research Questions

1. Does entrepreneurial orientation significantly affect the performance of SMEs?
2. Does e-commerce adoption significantly affect the performance of SMEs?
3. Does organizational culture significantly affect the performance of SMEs?

4. Does the dynamic business environment moderate the relationships of entrepreneurial orientation, e-commerce adoption, and organizational culture with the performance of SMEs?

1.4 Research Objectives

This study mainly aimed to identify practical implications that improve the performance of SMEs in the textile sector of Pakistan. The specific objectives of this study are presented as follows:

1. To assess the impact of entrepreneurial orientation on the performance of SMEs
2. To assess the impact of e-commerce adoption on the performance of SMEs
3. To assess the impact of organizational culture on the performance of SMEs
4. To assess the moderating impact of dynamic business environment on the relationships of entrepreneurial orientation, e-commerce adoption, and organizational culture with the performance of SMEs.

1.5 Scope of the Study

The scope of this study was restricted to the SMEs in the textile sector, particularly in Pakistan. Study also examined relationships of EO, ECA, OC with SME performance also with moderating effects of BE on the proposed relationships. A total 3,430 registered SMEs with Lahore Chamber of Commerce and Industries of the textile sector represented the target population (LCCI, 2018). Unit of analysis of the study is organization and key informant of the study were owner or manager who were managing the firm. Additionally, this study used cross-sectional research setting as the data was gathered from the key informant through single stage cluster, simple random sampling 520 SMEs were selected as sample of the study. In a practical sense, the

obtained findings of this study on SMEs in the textile sector were expected to benefit the Pakistani government and its policy-making agencies.

1.6 Significance of the Study

This section discusses the theoretical and practical significance of the present study that focused on SMEs in the textile sector of Pakistan.

1.6.1 Theoretical significance

Theoretically, this study primarily contributed pertinent insights on BE as the moderating variable in the relationships of EO, ECA, and OC with the performance of SMEs in Pakistan based on the obtained empirical evidence. Majority of the previous studies assessed the impact of EO on performance but often overlooked the collective influence of ECA and OC as predictors of SME performance in a single model. Furthermore, only a few past studies have considered the entire Pakistani textile industry.

1.6.2 Practical significance

This study was expected to benefit the decision-making of the management of SMEs in Pakistan's textile sector. GOVT of Pakistan, Ministry of textile also can get help to give subsidies and regulation purposes in textile SME sector of Pakistan.

1.7 Operationalisation of Key Terms

The operationalisation of EO, ECA, OC, BE, and the performance of SMEs are presented in the following subsections.

1.7.1 Entrepreneurial orientation

Covin and Wales (2011), Defined entrepreneurial orientation as follows: "Entrepreneurial firms are those in which the top managers have entrepreneurial management styles, as evidenced by the firms' strategic decisions and operating management philosophies. Non-entrepreneurial or conservative firms are those in which the top management style is decidedly risk-averse, non-innovative, and passive or reactive". Meanwhile, (Gutterman, 2014), defined entrepreneurial orientation as follows: "Entrepreneurial behaviour that indicates the extent to which SMEs are entrepreneurial in terms of risk-taking, pro-activeness, and innovativeness". According to Andy et al. (2019); Wiklund and Shepherd (2003), entrepreneurial orientation refers to "the decision-making styles, practices, processes, and behaviours that lead to 'entry' into new or established markets with new or existing goods or services". Hence, as for the present study, entrepreneurial orientation was operationalised as an entrepreneurial behaviour indicating the extent of SMEs demonstrating the traits of risk-taking, pro-activeness and innovativeness.

1.7.2 E-commerce

Deeter-Schmelz and Norman Kennedy (2004), was used to define ECA: "The use of electronic data and applications for planning and executing the conception, distribution, and pricing of ideas, goods, and services to create exchanges that satisfy individual and organizational objectives". Choshin and Ghaffari (2017), defined e-commerce as "the process of buying, selling, transferring or exchanging products, services, and information through email, the Internet, and the world wide web. The rationale for this definition emanates from the fact that most developing countries have lagged in acquiring and using e-commerce resources in their business due to several challenges

such as lack of e-commerce's unfriendly regulatory policies, lack of financial resources and several other reasons". Meanwhile, Strauss and Judy (2016), defined e-commerce as "the process of buying and selling, transferring or exchanging products, services and or information via computers including the Internet". Hence, as for the present study, e-commerce was operationalised as "a process of buying and selling goods or services online using a computer and the Internet", where the seller makes an advertisement using any advertising website and any person can approach the seller to buy the advertised product or service. Basically, e-commerce does not involve a physical store and physical market.

1.7.3 Organizational culture

Schein (1984), defined organizational culture as "a system of shared assumptions, values, and beliefs, which governs how people behave in organizations. These shared values have a strong influence on the people in the organization and dictate how they dress, act, and perform their jobs. Every organization develops and maintains a unique culture, which provides guidelines and boundaries for the behaviour of the members of the organization". Meanwhile, Schein (1990), further defined organizational culture as "a pattern of basic assumptions that a given group has invented, discovered, or developed in learning to cope with its problem of internal integration, and that have worked well enough to be considered valid, and therefore, to be taught to new members as a correct way to distinguish, think, and feel in relation to those problems". Hence, as for the present study, organizational culture referred to a common concept, a system of beliefs and values governing organizations. These shared values have a strong influence on the organization. Each corporation establishes and retains a distinctive culture that offers guidelines and constraints on the actions of the company.

1.7.4 Dynamic Business Environment

Crane and Matten (2016), defined Dynamic Business Environment as "the extent to which the dynamic business environment adequately sustains the growth of enterprises operating within it by providing resources, assistance and support services that may enhance their performance". On the other hand, the dynamic business environment was defined as "a set of conditions, economic, social, political, or institutional in which business operations are conducted" (Bach, de Chazeau, O'Connell, Weimer, & Grether, 1956). Meanwhile, K. Davis, Blomstrom, and Lowell (1966) defined dynamic business environment as "the aggregate of all conditions, events, and influences that surround and affect it". As for the present study, dynamic business environment was operationalised as the extent of an environment in providing the required resources, assistance, and support for the SMEs to improve its performance and sustainability.

1.7.5 Performance of SMEs

Performance of SMEs is defined as "the ability of SMEs to effectively and efficiently utilise the available resources to survive, satisfy customers, and contribute to the creation of employment" Curran and David (2016).

1.7.5.1 Financial performance of SMEs

"The ability of SMEs to effectively and efficiently utilise the available financial resources to survive, satisfy customers, and contribute to the creation of employment."

1.7.5.2 Non-financial performance of SMEs

Non-financial performance refers to "the ability of SMEs to effectively and efficiently utilise the available non-financial resources (inventory turnover, customer satisfaction,

product or service quality, human capital, and growth of market share) to survive, satisfy customers, and contribute to the creation of employment".

1.8 Organization of Thesis

This study is broadly organized into five chapters. Chapter 1 introduces the study by providing a background, problem statement, research questions, research objectives, scope and significance of the study, and concludes with defining the key terms. Chapter 2 provides a critical analysis on review of the literature on entrepreneurial orientation, e-commerce adoption, organizational culture, dynamic business environment and financial and non-financial performance of SMEs. The chapter reviews empirical findings as to the relationship between entrepreneurial orientation, e-commerce adoption, organizational culture, dynamic business environment and SME performance. The underpinning theory is also introduced and discussed in this chapter. Finally, the chapter presents the research framework which is built upon the reviewed literature concluding on development of hypotheses.

Chapter 3 elaborates on the research methodology used for this study, including the measurement instrument, research design, research population, sample size, sampling method, as well as the strategies and instrument for the data collection. Finally, reliability testing of pilot or preliminary study is reported. Chapter 4 describes the statistical analysis of the collected data. Subsequently, the measurement model as well as the structural model which were assessed with PLS-SEM using the SmartPLS3 were analysed and reported.

Chapter 5 discusses the research findings in light of the research objectives and hypotheses. The chapter states the theoretical and practical contributions and

implications of the findings of this study. The chapter presents the research limitations and suggests future research direction, hence concluding the study.

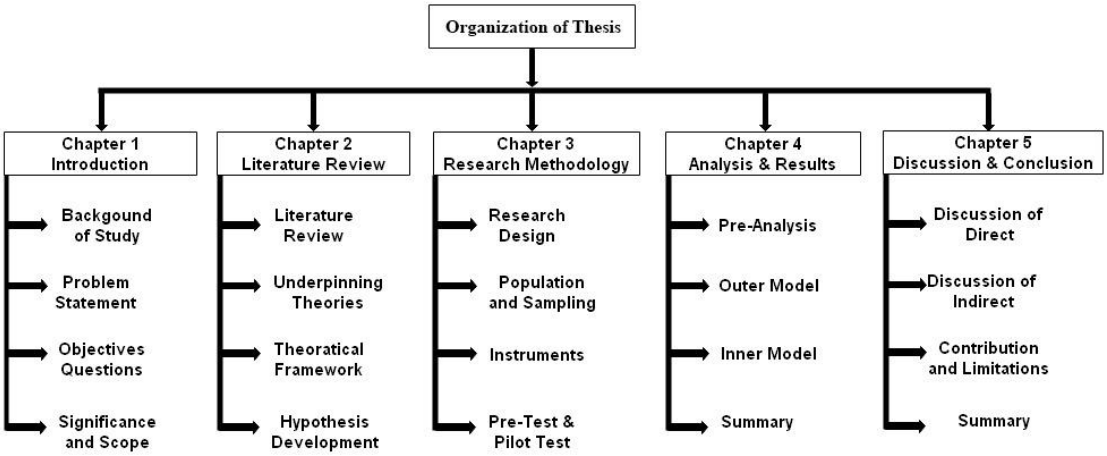

Figure 1.2 Research structure

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter reviews the available literature on the performance and contribution of SMEs, followed by the discussion on the relationships of EO, ECA, and OC with SME performance in terms of the financial and non-financial performance as well as the moderating impact of BE on these relationships. Essentially, the review of related literature provides an idea of specific areas of study that require new or additional research. Moreover, the chapter discusses the resource-based view (RBV) theory, technology acceptance model (TAM), and contingency theory that established the underlying basis of the current research framework. Finally, this chapter introduces the theoretical framework followed by hypotheses development.

2.2 Small and Medium-Sized Enterprises (SMEs)

According to Lorsch (1967), The success of small and medium-sized enterprises is a term that has been widely explored in numerous articles, but the interpretation of the output of small and medium-sized enterprises remains uncertain. The success of the SME is the method of quantifying the behaviour of the SME contributing to the achievement of the goal. From a market viewpoint, small and medium-sized businesses accomplish their goals by satisfying the needs of their clients and partners differently than their peers. In order for the SMEs to demonstrate superior performance, it is important they efficiently and effectively realise their goals and objectives.

The use of the term “performance” in describing and measuring all aspects of management is not new. For examples, performance management, firm performance,

performance measurement, performance assessment, or performance evaluation. Despite the frequent use of this particular term, its specific definition remains relative. Past studies on small businesses mainly assessed factors determining SME performance which may be viewed as how SMEs deliver value to their customers and stakeholders as well as how well the owners or managers of SMEs manage their resources (Moullin, 2007).

Meanwhile, the definition of SMEs differs across sectors, governments, and countries according to their contribution to economic development and their existing social conditions. SMEs are typically described based on the number of employees, annual revenues, and paid-up capital (Thollander et al., 2015).

In Pakistan, SMEs are also defined differently. Nevertheless, SMEs are widely defined according to three key characteristics, namely the number of employees, annual revenues, and paid-up capital. The government of Pakistan devised and adopted a single definition of SMEs that has been widely acknowledged by all public and private organizations. These organizations were permitted a two-year timeframe to line up their existing definition of SMEs to the proposed definition under the Small and Medium Enterprises Development Authority SMEDA Policy (Saleem, 2008). Accordingly, SMEs refers to a business that hires employees at a maximum of 250, annual revenue of up to 250 million Pakistani Rupee, and have paid-up capital up to 25 million Pakistani Rupee (SMEDA, 2015). In particular, small enterprises have less than 35 employees, while medium-sized enterprises have between 36 and 250 employees (Saleem, 2008).

2.2.1 The contribution of SMEs to the economy of Pakistan

SMEs are globally documented as highly crucial in boosting up the economy of a country and to ameliorate poverty. It is a documented fact that SMEs systematically contribute to the economic prosperity and well-being globally, which ultimately become the trademark of the world's economy. The contribution of SMEs in terms of GDP (40%) and exports (30%) in Pakistan's manufacturing sector is deemed noteworthy. Batool and Zulfiqar (2011) highlighted that the government of Pakistan had acknowledged SMEs as one of the four major drivers of economic development and growth.

2.2.2 The contribution of SMEs to the textile sector in Pakistan

The textile sector is an essential sector in Pakistan. Its textile sector contributes national exports of about 60%, industrial production of 46%, employed industrial workforce of 40%, and GDP of 9% (Ministry of Finance, 2017; Shah, Syed, & Shaikh, 2014). There has been a substantial investment made in this sector over the past few years in order to capture the exports and manufacturing opportunities in this challenging, quota-free environment (Altaf, 2008). Therefore, it is necessary for SMEs to eliminate their weaknesses and adopt ways to improve their performance in the textile sector in order to compete in the international market (Shah et al., 2014).

However, explicit observations on the production of the textile sector for SMEs in Pakistan indicate lack of EO practices, the absence of technical production procedures, limited variety and low-quality production, and inflexibility towards current trend (Jazib Ahmed, 2016). Consequently, SMEs in Pakistan's textile sector is incapable to adequately respond to the increased demands of major industries, such as healthcare, education, and agriculture (Jazib Ahmed, 2016).

2.2.3 Critical issues and challenges of SMEs in Pakistan

There are several key factors that affect SMEs in Pakistan, such as entrepreneurial practices, entrepreneurial skill, taxation and regulations, lack of product patents, obsolete outdated technology (Haroon et al., 2017), and unsupportive organizational culture (Albarracín & de Lema, 2011). Khalique, Isa, Shaari, and Abdul (2011), stated that SMEs in Pakistan encounter various problems like dearth of financial support, absence of infrastructure, the inflow of foreign goods and services, and failure to innovate due to the lack of new technologies. The main challenges that affect the operation of SMEs in Pakistan were ranked as follows, in the order of seriousness: (1) lack of entrepreneurial practices; (2) dynamic business environment; (3) weak infrastructure; (4) inconsistent government policies (Awan et al., 2019). Lack of entrepreneurial skills also greatly affect the performance of SMEs (Boso, Oghazi, Cadogan, & Story, 2016; Levy, 2013). As for the lower-middle-income countries in Asia, the lack of entrepreneurial skills was identified as a major problem that affects the development of SMEs (Awan et al., 2019).

There are also dynamic business environmental factors affecting SME performance (Man, Lau, & Chan, 2002). Unfavourable BE in relation to innovative-minded management and harsh markets pose problems to the development of SMEs in Pakistan. Lack of provisions of essential services, such as electricity, access to roads, and water supply, is the most considerable constraint to the development and operation of SMEs (del Brío & Junquera, 2003). The dependence on generators for electricity incurs substantial business costs for most of the SMEs in Pakistan. Insufficient demand for the products of SMEs due to the inflow of foreign goods and services also constitutes another constraint on their growth (Gadenne, Kennedy, & McKeiver, 2009). The poor quality of products and low purchasing ability of the target markets, as a result of the

existing economic condition, also affect the development of SMEs in Pakistan (Tesfom & Lutz, 2006).

Many SMEs in Pakistan do not have the managerial skills and relevant educational background to manage their business (Dar et al., 2017). Thus, they are not adequately capable to perform effective control and planning. Certain owners or managers of SMEs do not comprehend the critical points of the success of their competitors. The productivity, expansion, and competitiveness of SMEs are also affected by their inability to employ skilled labour, as hiring semi-skilled and unskilled labour are cheaper (Soomro, Shah, & Mangi, 2019). The inconsistency and poor implementation of budgeting are other issues that affect the SMEs in Pakistan. Besides that, most of the owners or managers do not attempt to assess the weakness of their competitors in order to identify opportunities to enhance the performance of SMEs (Memon & Hussain, 2019).

Wasim (2015) evaluated the SMEs in Pakistan and found that these SMEs play a significant economic role, as Pakistan is strategically located at the most critical trade route between Asia and Europe through China-Pakistan Economic Corridor (CPEC). Considering the importance and magnitude of the textile sector, the economic performance of the country is directly caused by the discouraging performance of Pakistani SMEs.

There is an urgent need that policymakers, large businesses, and academia of Pakistan to pay attention to SMEs for sustainable and realistic growth of Pakistan's economy (Zaveri et al., 2016). SMEs create employment opportunities and are crucial for developing countries such as Pakistan (Nishat & Mustafa, 2010). SMEs

should continuously strive to achieve higher performance and competitiveness to achieve sustainability (Gibb, 1997).

Studies have highlighted the potential market for SMEs in boosting the country's economy, particularly when the potential market is systematically explored and undertaken (Khan, Yang, Khan, & Waheed, 2019). The factors that hinder the progress of SMEs in Pakistan are well-known. Studies have revealed most of the SMEs are under pressure to survive in today's globalised competitive economy due to the lack of technology, entrepreneurial skills, broader markets, lack of infrastructure, and competition from the foreign products. Besides that, it is a challenge for policymakers and critical government stakeholders to focus on SME performance due to the absence of detailed and quantifiable data. During 2011-12, SMEDA took the initiative to publish SMEDA Research working papers series to bridge the information GAP (Khan, Yang, et al., 2019).

2.3 Performance of SMEs

As previously discussed, there is no single, definite definition of the performance of SMEs despite the extensive discussion of the performance of SMEs in various studies (Keith D. Brouthers, Nakos, & Dimitrato, 2015). SMEs are said to achieve their objectives if they can meet the needs of their customers and stakeholders better than their competitors (Li, Toppinen, & Lantta, 2016). It is important for SMEs to demonstrate superior performance by efficiently and effectively realise their goals and objectives (hutchinson, donnell, & gilmore, 2015). Highly efficient and effective SMEs in terms of the values delivered to both customers and stakeholders are able to perform better than their competitors (Zott & Amit, 2010). In this case, effectiveness refers to the extent to which the needs of customers and stakeholders are met by SMEs whereas

efficiency refers to how the financial resources of SMEs are utilised when they attempt to meet the needs of their customers and stakeholders (Atkinson, H, & Robert, 2010).

SME performance in the present study was operationalised as "the ability to effectively and efficiently utilise the available resources to survive, satisfy customers, and contribute to the creation of employment". To gain a further insight on performance of SMEs, two key dimensions of SME performance have been identified and utilised in this study, i.e. financial and non-financial performance.

The performance of SMEs can be viewed as the realisation of the established goals and objectives or in other words, how well SMEs are in managing and delivering values to the customers and stakeholders (Abe et al., 2015; Patrizia, Paola, & Bititci, 2013). However, from an entrepreneurial perspective, the performance of SMEs is viewed as the ability to survive, grow, and contribute to the creation of employment and addressing poverty issue (Lazim, Azizan, & Sorooshian, 2015). Therefore, SME performance can be measured using financial and non-financial measures (Chrisman, Chua, Pearson, & Barnet, 2012). On a similar note, the performance of SMEs can be measured quantitatively (Augustine, Bhasi, & Madhu, 2012), as external variables (Ahmad, Abdullah, & Roslan, 2012), or as subjective variables (Akpan, Effiong, & Ele, 2012; Aliyu & Mahmood, 2014; Arribas, Fornoni, & Vila, 2012; Polat & Mutlu, 2012; Shepherd & Wiklund, 2005; Tang & Tang, 2012). Most of the previous studies on SMEs adopted quantitative measures to assess SME performance. Past studies considered financial and non-financial performance as the dimensions of SME performance and analysed it as a multidimensional construct (Chong, 2008a; Harif, Azhar, Hoe, & Ahmad, 2012b; Hudson, Smart, & Bourne, 2001; Rauch, Wiklund, et al., 2009b). In view of the above, the nature of the present study was quantitative, and

both financial and non-financial dimensions were also considered. Furthermore, the performance of SMEs was similarly measured as a multidimensional dependent variable.

Accordingly, Akpan et al. (2012), stated that non-financial measures include production costs, product quality, customer satisfaction, supplier satisfaction, and employee satisfaction, while a study stated that financial measures include market share, profitability, exports, return on investment, and return on assets (Harif et al., 2012b). Most importantly, the owners or managers of SMEs should comprehend how well their organizations can perform entrepreneurially in terms of meeting the needs of both customers and stakeholders using financial and non-financial measures (Padin, Sevnnson, & Payan, 2016). With that, the performance of SMEs can be measured and compared to determine the effectiveness and efficiency of their organizations in utilising the resources, competitiveness, and management of their external environment.

These measures, as critical management tools are able to provide the owners or managers of SMEs with updated details of their performance (Baporikar, 2016). Financial measures are one of many measures that are critical in determining the practicality of a specific business approach for SMEs (Drucker, 1989).

2.4 Dependent, Independent, and Moderating Variables of the Study

The following subsections discuss the dependent, independent, and moderating variables of the study. In particular, SME performance was assessed as the dependent variable which was measured in terms of financial and non-financial performance.

Besides that, EO, ECA, and OC were assessed as the independent variables whereas BE was assessed as the moderating variable.

2.4.1 Performance measures of SMEs

In general, SME performance is critical for the socio-economic development of a country, including developing countries. Highly dynamic SMEs with excellent performance are fundamental for the economic progress and prosperity of emerging economies in this highly competitive and challenging environment (Shin, 2017). SMEs are known as growth engines and lifelines of prospering economies worldwide. In developing countries, the role of SMEs becomes increasingly important, as they provide employment opportunities, produce innovative products and services, and enhance the international trade of an economy (Jevwegaga et al., 2018).

The performance of SMEs has gained growing academic interest. The performance of SMEs substantially influences the individual entrepreneurs as well as the whole society (Phillips & Kirchoff, 1988). Thus, the understanding and measurement of SMEs or their entrepreneurial performance are deemed imperative (Chandler & Hanks, 1993). The measurement of performance is essential in order to understand the operation and management of an organization what is measured is of equal significance as to how it is estimated (Kanter & Brinkerhoff, 1981). Hence, from the academic perspectives, both issues on what constitutes the performance and how the performance is measured are emphasised. However, the measurement of the SME performance has been overlooked. SMEs primarily focus on their financial and operational performance and generally overlook research and development, innovation, as measures of performance (Hvolby & Thorstenson, 2000; Lyver & Lu, 2018; Malesios et al., 2018; McDowell, Peake, Coder, & Harris, 2018).

According to McKiernan and Morris (1994), SMEs do not have a specific plan in measuring their performance, as they typically follow an informal approach to measuring performance. Past studies also identified several barriers to performance measurement of SMEs in a well-planned manner. For example, inadequate human resources to manage the issue of performance measurement. The employees engage in day-to-day operational activities; thus, they often do not have the time to oversee performance measurement (Saunila, 2016).

Besides that, SMEs mostly require their employees to be technically sound and involved in the production and operational processes (Auer & Jarmai, 2018). As a result, managerial culture is generally deficient in such organizations; hence, administrative role, techniques, and procedures are deemed as of little value to the organizations. In most cases, employees are expected to hold multiple positions due to flat organizational structures. Consequently, an entrepreneur who is supposed to give equal importance to both operational as well as managerial functions eventually fails to do so and pays more attention to the operational tasks instead. Inevitably, performance measurement is an administrative task that is often neglected. Studies have pointed out that the shortage of financial resources is another barrier that affects the development and implementation of performance measurement programmes among SMEs. Unlike large organizations, SMEs cannot afford to install expensive software platforms to meet their specific needs to measure and monitor their financial and non-financial performance (Chong, 2008b; Harif, Azhar, Hoe, & Ahmad, 2012a; Hudson et al., 2001; Rauch, Wiklund, Lumpkin, & Frese, 2009a).

Adding to that, SMEs are known to have improper strategic planning and formalisation (Keith D Brouthers, Andriessen, and Nicolaes (1998). SMEs are less proactive and

more reactive in their approach to their management activities. They usually have a short-term focus and do have adequate explicit methodologies and strategies to assist their control processes, such as performance measurement.

Studies have demonstrated the differences between SMEs and large organizations in several factors (Jardón, 2018). SMEs are characterised by personalised management, minimal delegation of power and authority, acute shortage of human and financial resources, dependence on a few customers, flexible organizational structures, high innovation potential, firefighting mindset, and informal and dynamic in nature (Hauser, Eggers, & Güldenberg, 2019; O'Regan, Ghobadian, & Liu, 1998; Savur, Provis, & Harris, 2018).

The aforementioned characteristics of SMEs highlight a dire need to measure the performance of SMEs in a holistic manner. Well-formulated performance measures can trigger and mobilise the owners or managers and employees of SMEs and provide the required inputs to achieve success. Shortage of financial and non-financial resources reflect the need for SMEs to be cautious about time and quality dimensions. Moreover, they cannot afford any wastage and need to ensure higher levels of productivity by employing the available resources optimally as well as by incorporating innovation into the existing production processes.

In the same manner, dependence on the demands of a few customers has created a highly competitive market for SMEs. SMEs should be innovative in order to achieve higher customer satisfaction. With that, SMEs can offer customers newer and better products than what their competitors offer. The existence of flat and flexible organizational structure in SMEs often requires the employees to perform multiple tasks and assignments; in this regard, SMEs need to particularly emphasise the

employees' growth and development as measures of their performance (Gupta & Govindarajan, 1984).

Accordingly, this study described the performance of SMEs through measures like profitability and growth with respect to various financial and non-financial aspects of the business. Gibb and Davies (1990), signified that the growth of an organization could be assessed based on how it performs in the competitive market as well as its financial performance and capability to operate at optimum efficiency level. Gibb and Davies (1990), particularly highlighted two facets of SME performance, namely financial and non-financial performance.

In particular, financial performance refers to sound financial health, access to the required capital Boardman, Bartley, and Ratliff (1981), and adoption cost reduction measures (Gibb & Davies, 1990). On the other hand, non-financial performance refers to skilled managerial practices regarding the day-to-day operation of the business (Gibb & Davies, 1990). However, the use of the dimension proposed by Gupta and Govindarajan (1984), namely the satisfaction level of entrepreneurs, has been rather evident in the past studies that assessed the performance of SMEs (Murphy & Callaway, 2004). Murphy and Callaway (2004), highlighted the importance of the satisfaction level of entrepreneurs regarding various performances measures. In this case, the satisfaction level refers to the subjective assessment of performance from the perspectives of entrepreneurs. This has demonstrated a noteworthy scholastic debate in the literature of entrepreneurship concerning the equivalence of subjective and objective performance measures.

2.4.1.1 Financial measures

Studies have revealed five financial indicators in the measurement of performance, namely return on investment, inventory turnover, profitability, budget versus actual performance and cash flow position (Baker & Rodriguez, 1997; Bauer, Koedijk, & Otten, 2005; K. Chen & Shimerda, 1981; Sun, Aryee, & Law, 2007; Ueda et al., 1995). Hence, the study incorporated the following financial measures, specifically "(1) profitability, (2) cash flow position, (3) return on investment, (4) inventory turnover, and (5) budget versus the actual performance".

2.4.1.2 Non-financial measures

Studies have revealed four non-financial indicators in the measurement of performance, namely "customer satisfaction, product or service quality, market share, and employee efficiency" (Chiu & Cima, 1993; Cho & Pucik, 2005; Eccles, 1991; Huey Yiing & Zaman Bin Ahmad, 2009; Ittner & Larcker, 1998). Solely depending on the financial evaluation is deemed inadequate; hence, non-financial assessment in terms of business relationships and the organization's capabilities largely determine the prospects of successful "customer satisfaction, product or service quality, market share, and employee efficiency".

Past studies also identified a strong correlation between financial performance and non-financial performance (Atalay, Anafarta, & Sarvan, 2013; Islam et al., 2011; Kraus, Rigtering, Hughes, & Hosman, 2012; Rhee, Park, & Lee, 2010). Hudson et al. (2001), suggested both financial and non-financial evaluations as a reliable means to measure performance. Hence, as for the present study, financial and non-financial performance was measured as the performance of SMEs as a single, multidimensional construct.

2.4.2 Entrepreneurial orientation

EO has been discussed as relevant factor in the performance of SMEs (Wiklund & Shepherd, 2003). The most widely used definition of EO was introduced by Covin and Slevin (1989a), which was improved by other studies, including Tom Lumpkin and Dess (1996), which has been widely used in literature on entrepreneurship, strategic management, and marketing (Zahra, 2010).

EO of SMEs refers to an enterprise displaying the behaviour of pro-activeness, risk taking and innovativeness (Daia, Maksimovb, & Fernhaberd, 2014) and has been use similarly for this study. The behaviour of SMEs in competition, technology adoption, and business activities can also be witnessed through the lens of EO (Arshad & Rasli, 2018; James, Pett, & Timothy, 2000). The same has also been concluded in a study by (Laskovaia, Marino, Shirokova, & Wales, 2019). The importance of EO has also been highlighted by Coopera (2013) as EO improves the entrepreneurial skills and opens doors to new markets (Coopera, 2013).

Therefore, it is imperative for SMEs to survive and perform well (Polat & Mutlu, 2012). Various studies have identified the importance of EO dimensions of risk-taking, pro-activeness, and innovativeness in relation to SME Performance (Al-Swidi & Mahmood, 2012; Sadiku-Dushi, Dana, & Ramadani, 2019). Similarly, EO may also be viewed as a route through which SMEs can identify new business opportunities and is considered as an asset for the entrepreneur and the SME (Hulberta, Gilmoreb, & Carson, 2013). EO involves processes, actions, and intentions of managers and entrepreneurs in opportunity creation and business promotion. These processes, operations, and plans directly stem from a behaviour defined by risk-taking, pro-activeness, and innovativeness with a focus on being competitive (Calabrò et al., 2018). Therefore, it

is key to note that the EO processes and activities are useful in characterising and distinguishing essential entrepreneurial processes (Fernández-Serrano & Romero, 2013).

In conclusion, the ability of SME to take risk, be proactive in execution and decision making, combined with the ability to innovate is the entirety of EO (Raby & Gregson, 2018). Lechner and Gudmundsson (2014), defined EO as the process, behaviour, and structure of business for SMEs. Meanwhile, Wiklund and Shepherd (2005), defined EO as the strategic ability of SMEs to capture specific aspects of decision-making, and business practices. SMEs with sound EO are able to identify and utilise new market opportunities (Masa'deh, Al-Henzab, Tarhini, & Obeidat, 2018).

Studies have revealed EO as a multidimensional composite construct that is represented by the ability of SMEs in taking risks and being pro-active and innovative. According to (Richard, Barnett, Dwyer, & Chadwick, 2004), SMEs that simultaneously exhibit significantly high levels of risk-taking, pro-activeness, and innovativeness with autonomy and aggressiveness have entrepreneurial strategic postures. These three dimensions (risk-taking, pro-activeness, and innovativeness) are identified as basic EO (Miller, 2014). Furthermore, several past studies that assessed the performance of SMEs measured EO in terms of these three dimensions that are perceived as a composite (Ayuso & Navarrete-Báez, 2018; Cruz & Nordqvist, 2012; Fatoki, 2012; H. Frank, Kessler, & Fink, 2010; Stam & Elfring, 2008; Weismeier-Sammer, 2011; Yu, Wiklund, & Pérez-Luño, 2018). Based on the previous researches this study also using basic three dimensions of EO, as this study focusing only on SMEs performance.

Besides that, the risk-taking, pro-activeness, and innovativeness in the decision-making of SMEs can generate employment opportunities, help to produce foreign exchange, improve the efficiency of the workforce, develop the business management skills, and distribute technological know-how (Batool and Zulfiqar (2011). Thus, the implementation of EO contributes to SME performance and the economic development of a country.

2.4.2.1 Risk-taking

Risk-taking signifies the ability of an organization in making a substantial financial commitment in order to realise higher profits via market opportunities (Tom Lumpkin & Dess, 1996). Risk-taking also denotes to the tendency of the business group in opting for high-risk alternatives to achieve the objectives of the organization (Thomas Lumpkin & Dess, 2001). In other words, the level of resources that are committed to insecure investments is characterised by the risk-taking behaviour of the owners or managers of SMEs (Arzubiaga, Iturralde, & Maseda, 2012). Risk-taking is the ability of a business organization to borrow heavily and invest in opportunities with higher returns markets (Lyon, Lumpkin, & Dess, 2000).

Risk-taking denotes to the tendency of a business organization to borrow enormous financial possessions and invest in high-risk-high-return business projects with deliberate actions to achieve the objectives of organizations (Miller, 2011). On a similar note, Covin and Miller (2014), described risk-taking as high financial leverage. The owners or managers of the organizations must come up with business proposals that can attract more returns despite the higher risks, huge debts, and the need for substantial resources and business opportunities for recommendations (Certo, Moss, & Short, 2009).

2.4.2.2 Pro-activeness

According to Covin and Miller (2014), pro-activeness is a relevant and essential element of EO. Pro-activeness is a future of SMEs based on environmental demands, Where companies find markets and create innovative goods to achieve the benefit of creative and leading rivals (Hughes & Morgan, 2007). Pro-activeness is the process of taking advantage of the first move against competitors for business organizations. Tom Lumpkin and Dess (1996), described pro-activeness as anticipating the future requirements of customers in the marketplace through product or process innovation ahead of the competitors.

Similarly, pro-activeness refers to an organization's ability to think ahead of their competitors and predict future needs of the organization and customers; it is about the organization's first move and quickly pick up the new or existing market trends and harness the opportunities in the marketplace. As the first to move, pro-active organizations are usually first movers, or first followers, improving on the first mover to the market (Certo et al., 2009).

2.4.2.3 Innovativeness

An innovative business organization supports experimentation, creativity, originality and new ideas to situations that would result in new products and processes (Tom Lumpkin & Dess, 1996). Innovativeness reflects the ability of an organization in coming up with new ideas and products the actuality of these ideas usually measures the strength of this ability in shape of new products (Covin & Miller, 2014). As stated by Carneiro (2000), innovativeness includes the ability of a business organization to improve or come up with new ideas, creative processes, and new technologies. In other words, innovativeness refers to the ability of an organization to provide unique and

innovative ideas on how things can be done. It is imperative that business organizations must present new and improved products and services that focused on customer satisfaction.

The concept of innovativeness can be seen as achieving societal progress when there are new and innovative ideas and processes in business activities. The new ideas and methods encourage the production of new and improved products that subsequently increase market demands. Moreover, innovativeness stimulates product differentiation that improves the market position and acceptance of products, as compared to the competitors (Hughes & Morgan, 2007). Thus, innovativeness can be well-defined as the procedure of educating existing skills or acquiring new skills as well as the process of shifting from the existing skills to developing new ideas and competencies (Jones & Grimshaw, 2012).

It is a challenge to overcome the existing barriers to the EO approach due to the lack of activity centres, research on industries, and low government support. The stagnant production of textile requires further improvement in terms of quality and product differentiation (Kim, Hoskisson, & Lee, 2015). Thus, limited EO in terms of innovativeness is one of the apparent challenges for SMEs in Pakistan's textile sector.

2.4.3 E-commerce adoption

The term E-commerce is continuously evolving based on the very nature of information technology. This difference is evident in review of the studies conducted in early 2000s and late 2010s. Mahadevan (2000) refers to E-commerce as "a plan of action or a fragment of a larger project that empowers an individual or organization in directing the business over an automated system" (Mahadevan, 2000). More recently, Turban

and colleagues have defined e-commerce as “E-commerce is an emerging model of new selling and merchandising tools in which buyers are able to participate in all phases of a purchase decision while stepping through those processes electronically rather than in a physical store” (Turban, King, Lee, Liang, & Turban, 2015). Followed by, Iancu and Colomeischi’s (2019) definition of e-commerce as "a modern business technology that addresses the needs of organizations, traders and consumers to reduce transaction costs while improving the quality of goods and services and increasing delivery speed can also be used when using computer networks to search for and retrieve information to support human or institutional decision-making” (Iancu & Colomeischi, 2019). The definition of e-commerce also includes merchandising tools in general or specifically relates to buying and selling of products and services. Flanagin, Metzger, Pure, Markov, and Hartsell (2014), defined e-commerce as “the buying and selling of information, products, and services via computer network”. Meanwhile, described “e-commerce as the process of buying and selling, transferring or exchanging products, services, and/or information via computer, including the Internet”. This incorporates the use of the Internet to purchase and offer items and administration and trade of data and set up systems with the providers. Regardless of the definition chosen, it is evident that e-commerce is grounded in all three forms of businesses, i.e. B2B, B2C and C2C.

Clarke III (2001), provided one of the most comprehensive definitions of e-commerce was defined as “an integrative concept, designed to draw together a wide range of business support services, including inter-organizational email; directories; trading support systems for commodities, products, customised products and custom-built goods and services; ordering and logistic support systems; settlement support systems; and management information and statistical reporting systems”.

On the other hand, G. P. Schneider (2002), provided a brief and comprehensive definition of e-commerce: “all the business activities conducted using electronic data transmission”. The use of e-commerce can facilitate online services, such as generating prescriptions, appointment reminders, and treatment guidelines. Regardless of the definition chosen, it is evident that e-commerce is grounded in all three forms of businesses, i.e. B2B, B2C and C2C. The definition of e-commerce, defined by Schneider, was applied in this study. In general, e-commerce in this study assumed all electronically mediated transactions.

The elements of online business reception can be explained as those that promote or hinder the selection of e-commerce (Teo & Ranganathan, 2004). Damanpour and Gopalakrishnan (2001), Conducted a survey that incorporated a measurement system to evaluate the elements that influence the web-based business selection and use in SMEs that has been marginally altered from the old model. According to Damanpour and Gopalakrishnan (2001), the innovative setting, organizational setting, and ecological setting were found to influence the procedure by which SMEs embrace and execute mechanical advancements. Hence, the components will be founded on organizational, innovative, and e-commerce enhancements.

2.4.4 Organizational culture

OC, which is essential for an organization to enhance its ability, is a popular research topic in the context of organizational behaviour (Silverthorne, 2004). Furthermore, certain past studies recommended OC as the philosophy of managing an organization towards increasing the efficiency of outcomes (Boon, Arumugam, Vellapan, & Wei, 2006). Overall, there are many definitions of OC. On a similar note, OC reflects the shared beliefs, values, and assumptions of individuals in an organization that determine

the norms and the patterning behaviour from norms. Furthermore, OC is a fundamental part of integrating the members of a group (Linn (2008). Group culture is made up of practices, beliefs, and assumptions. Besides that, Tseng (2010). found OC as a norm that leads to specific behaviour and attitude of employees of an organization.

There are several important characteristics of OC: (1) culture is a real "way of life" for the members of an organization; (2) it concerns the underlying assumption, values, and beliefs that are likely to be reasonably stable over time when a culture is well established despite the turnover among the organizational personnel, and social continuity; (3) the culture content can incorporate matters of the organization internally (support business strategy or information secrecy) (4) it can strongly affect both organizational performance and employee satisfaction (B. Schneider, Ehrhart, & Macey, 2013). OC is a significant and important predictor of the employees' turnover intention. According to Joo and Shim (2010), if the employees in an organization experience an influential organizational culture, their turnover intention would be lower. Additionally, OC plays a significant role in the level of organizational commitment (Richard, McMillan-Capehart, Bhuian, & Taylor, 2009; Silverthorne, 2004). Clearly, OC is essential for the success of an organization.

Furthermore, Bortolotti, Boscari, and Danese (2015), also reaffirmed the influence of OC across all individuals. Hence, if the OC and the employees fit, an organization can achieve goals better. Furthermore, Burke (2017), stated that OC reflects the way things are done in an organization. Besides that, OC can shape the behaviour of employees and subsequently, the performance of an organization.

2.4.5 Dynamic Business Environment

BE refers to the factors that affect business activities based on its operation settings in the political, economic, sociocultural, technological, and environmental or ecological aspects, while the legal environmental factors refer to a more general definition of BE (Sloman, 2007). Task environment is most widely used in literature, where the environment is classified based on its influence on the SMEs (Coeurderoy & Murray, 2014). It comprises a set of factors that SMEs must consider in decision-making. These factors are physical and non-physical attributes that affect SMEs, and the behaviour of individuals within it divided the environmental factors into external environmental factors (Prajogo & McDermott, 2014). The external environmental factors consist of all physical and non-physical factors beyond the operation of SMEs, such as customers, suppliers, competitors, and socio-political and technological factors that affect individual behaviour and the decision-making of SMEs. Based on this definition, physical factors refer to all tangible elements whereas non-physical factors refer to all intangible factors, such as social factors.

Trumpp, Endrikat, Zopf, and Guenther (2015), specifically conceptualised BE as a one-dimensional construct. In another research BE regarded as the external environment of SMEs that include their operating environments, such as the government, competitors, customers, suppliers, and sociocultural aspects (Gupta et al., 2013).

A multifunctional world may include policy support, tax incentives, lower construction prices, the emergence of advanced technology, excellent services, and competitive markets (Rueda-Manzanares, Aragón-Correa, & Sharma, 2008). Small and medium-sized businesses will then have further incentives to exploit and utilise their capital. Similarly , environmental munificence relates to the provision of support programmes

intended to enhance the efficiency of SMEs. Furthermore, the governmental policies, entrepreneurial and business skills, socioeconomic conditions, financial and non-financial support for businesses are similarly grouped as the environmental factors that are linked to businessmen (Wahga & Blundel, 2015).

Studies have assessed the various functions of BE in the performance of SMEs (Ensley, Pearce, & Hmieleski, 2006; Goll & Rasheed, 2004; Rasheed, 2005; Rueda-Manzanares et al., 2008; Wiklund & Shepherd, 2005). However, empirical studies on the influence of supportive BE on the strategic activities and performance of SMEs concerning the RBV theory remain limited (Rueda-Manzanares et al., 2008).

An earlier study conducted by Yusuf (2002), provided for the impact of competitive BE on the association among EO and SME Performance. The research has resulted in a favourable and important relationship between EO and efficiency. A significant result was the clear mitigation impact of the competitive atmosphere on the partnership between corporate entrepreneurship and financial efficiency. Furthermore, a durable connexion between environmental factors and the performance of SMEs through the operation strategy has also been reported (Badri, Davis, & Davis, 2000). Another study by Goll and Rasheed (2004) found a strong moderating effect of munificent environment on the relationship between CSR and SME Performance (Goll & Rasheed, 2004). Alternatively, the contingency model adopted by Wiklund (2006), revealed an insignificant impact of environmental dynamism on the relationship between EO and SME Performance.

More recently, study conducted by Mahmoud (2011), concluded the positive intervening role of BE on the relationship with Market Orientation (MO) and SME

Performance. Additionally, studies have also highlighted a positive effect of competitive intensity, technology and market turbulence on the relationship between EO and SME Performance (Wang, 2012; Wang & Fang, 2012). These results were found to be in line with the reported findings by Tang and Hull (2012), which revealed that Chinese enterprises tend to apply more marketing strategies due to their environmental perception. Tang and Tang (2012), studied the relationship between EO and performance with environmental generosity as a control variable. The study subsequently revealed the link between environmental munificence and performance. Environmental uncertainty as an element of external BE has been reported as a significant factor that influences SME performance (Polat & Mutlu, 2012). Didonet, Simmons, Díaz-Villavicencio, and Palmer (2012), similarly revealed the dynamic nature of BE in relation to environmental uncertainty that invariably creates a superior performance of small businesses.

2.5 Development of Hypotheses

This study aimed to examine the relationships of EO, ECA, and OC for SMEs as well as the moderating role of BE in influencing the impact of EO, ECA, and OC on SME Performance. The resultant outcomes of this study were expected to particularly benefit owners or managers of SMEs in their understanding of e-commerce in the region and how they assess their actions, either for or against e-commerce adoption. As a dynamic field, the strengths and changes of SMEs as they find their place in the e-commerce adoption were acknowledged in this study. The relevant framework of the study was proposed according to the objectives of study and available evidence in the literature.

2.5.1 Development of direct hypotheses

EO is one of the prominent constructs that influence the SME performance in management, strategy, and entrepreneurship literature. Earlier studies that explored business performance demonstrated the importance of EO when it comes to the actions of SMEs. Several scholars theorised a relationship between EO and the performance of SMEs (Al-Dhaafri et al., 2016; Lonial & Carter, 2015; Price & Stoica, 2015). Studies have revealed the entrepreneurial behaviours, such as risk-taking, pro-activeness, and innovativeness, characterise the superior performance of SMEs. For instance, Chung-Wen (2008), argued that SMEs with healthy entrepreneurial behaviours achieve excellent business performance.

In addition Fairoz et al. (2010), found that risk-taking, pro-activeness, and innovativeness collectively and directly affected SME financial performance. EO was also found to improve SME performance, as majority performing SMEs either exhibited certain or all EO activities (Fairoz et al., 2010). Additionally, Ferreira et al. (2011), reported superior financial performance for SMEs through EO. Other studies also reported similar results, where The EO was found to have a direct and indirect impact on the financial performance of small and medium-sized enterprises (Madhoushi, Sadati, Delavari, Mehdivand, & Mihandost, 2011; Zainol & Daud, 2011). In view of the above, the following hypothesis was proposed for testing in this study:

H_1: Entrepreneurial orientation significantly affects the financial performance of SMEs.

Besides that, entrepreneurial processes may also lead to favourable outcomes on the non-financial performance of SMEs. EO enhances SME's ability to take risks, be more

innovative, and proactive (Al-Swidi & Al-Hosam, 2012; Al-Swidi & Mahmood, 2012; Idar & Mahmood, 2011). Several past studies revealed that EO significantly and positively affect the non-financial performance of SMEs. The literature explains that this multidimensional construct significantly affects the non-financial performance of SMEs (Boohene, Marfo-Yiadom, & Yeboah, 2012). As EO gives SMEs the first-mover advantage, SMEs are able to improve their performance (Fatoki, 2012). Hence, a business infused with the culture of EO can be proactive by investing its resources to gain new opportunities and high returns in the market, resulting in higher performance (Zhou et al., 2013). Hence, the following hypothesis was tested in this study:

H_2. Entrepreneurial orientation significantly affects the non-financial performance of SMEs.

E-commerce-oriented SMEs appear to possess the capability and will to adopt better technologies for superior performance. SMEs that consider innovation as a strategic priority tend to excel in technical skills and demonstrate adaptability, creativity, and pro-activeness in the development of their products and services (Paladino, 2007). Therefore, e-commerce is a major way for SMEs to create product differentiation and promote better product designs than their competitors, resulting in improved performance (Hoq, 2009). The performance of SMEs can be improved through adaptive capability; hence, organizations should enhance their e-commerce capacity (W.-T. Wang, Wang, & Liu, 2016). Thus, the following hypotheses were proposed for testing in this study:

H_3. E-commerce adoption significantly affects the financial performance of SMEs.

H_4. E-commerce adoption significantly affects the non-financial performance of SMEs.

Meanwhile, OC has been widely studied as an independent variable that affects work outcome, such as turnover and absenteeism. However, only a few past studies assessed the vital role of OC (Suliman, 2002). The review of the literature revealed OC as an independent variable in relation to the organizational performance (Iverson, 1996; Suliman, 2002) and its critical role in influencing SME performance (Tumwesigye, 2010).

H_5. Organizational culture significantly affects the financial performance of SMEs.

H_6. Organizational culture significantly affects the non-financial performance of SMEs.

2.5.2 Development of indirect hypotheses

SMEs are affected by several environmental factors that are complex and ever changing. SMEs that overlook the influence of these environmental factors are bound to perform poorly. Several past studies suggested the influence of environmental factors on the relationships of different dimensions of EO and performance (Chung-Wen, 2008; Tang & Tang, 2012; Zhang, Ma, & Wang, 2012). The environmental factors are said to affect the opportunities for entrepreneurs to act and make decisions (Tang & Tang, 2012).

Specific structures should facilitate entrepreneurial attitudes, market activities, and technological advancement of business enterprises. For instance, in the developed and some middle-income countries, enterprises perform well due to the relative stability of the BE (Vij & Bedi, 2012). Hence, the munificent, dynamic, and complex nature of BE serves as a source of entrepreneurial opportunities. The BE contributes to the financial performance of SMEs with high entrepreneurial activities in terms of risk-taking, pro-

activeness, and industrial innovativeness (Hoq & Chauhan, 2011). Therefore, based on the review of the literature, the following hypotheses were proposed for testing in this study:

H_7. The dynamic business environment significantly affects the relationship between entrepreneurial orientation and the financial performance of SMEs.

H_8. The dynamic business environment significantly affects the relationship between entrepreneurial orientation and the non-financial performance of SMEs.

Meanwhile, S. Chong and Bauer (2000), assessed the utilization of e-commerce technologies among SMEs in Australia and found the predominant use of internet by small businesses for internal communication. Access information and behaviour of different parties and suppliers R&D activities can be seen in the forefront of technology, to carry out the market and products search, vendor order management and customer order management. Drew (2003), also found the use of email applications and intranets by the domestic SMEs, while promoting communication, websites, and advertising. With that, the following hypotheses were tested in this study:

H_9. The dynamic business environment significantly affects the relationship between e-commerce adoption and the financial performance of SMEs.

H_{10}. The dynamic business environment significantly affects the relationship between e-commerce adoption and the non-financial performance of SMEs.

H_{11}. The dynamic business environment significantly affects the relationship between organizational culture and the financial performance of SMEs.

H_{12}. The dynamic business environment significantly affects the relationship between organizational culture and the non-financial performance of SMEs.

2.6 Research Framework

Based on the comprehensive review of literature and suggestions from several past studies, a theoretical framework was developed for this study to assess the moderating role of BE in the relationships of EO, ECA, and OC with SME performance in Pakistan. As previously described, EO, ECA, and OC were assessed as the independent variables that represent SME performance. The criterion variable for this study was SME performance and BE served as the moderating variable. In particular, EO in this study comprised of three dimensions, namely risk-taking, pro-activeness, and innovativeness. Meanwhile, both ECA and OC in this study were one-dimensional. On the other hand, SME performance comprised of financial and non-financial performance. Overall, EO and the performance of SMEs were analysed as a multidimensional construct, whereas the remaining variables were analysed as a one-dimensional construct.

Firstly, EO has been widely used in studies to determine the SME Performance. Studies have demonstrated the importance of EO as part of the resources of SMEs. Several past studies used this vital resource to investigate the performance of SMEs (Chow, 2006; Fatoki, 2012; Madhoushi et al., 2011; Rauch, Wiklund, et al., 2009b; Zhou et al., 2013). Upon recommendation of (Didonet et al., 2012), EO was adopted in this study as a predictor variable that indicates the extent of pro-activeness, risk-taking and innovativeness of SMEs.

Besides that, TAM supports the relationship between ECA and SME Performance (Safa & Ismail, 2013). In Pakistan a department established to observe SMEs published a

report, ECA was highlighted in that report to exhibit a positive impact on SME performance, which justified the adoption of ECA in the theoretical framework of the present study. ECA has been identified as a key factor that boost SME performance (Awiagah, Kang, & Lim, 2016; Koc & Bozdag, 2009; Wickramasinghe, 2016).

Whereas, in the sense of capital, OC may be called a rare intangible commodity, sometimes impacting the output of small and medium-sized businesses (Waters & Lo, 2012). Throughout this analysis, OC acted as an independent variable and its effect on the success of small and medium-sized businesses was deemed important. Another reasoning for using the RBV theory to constitute the theoretical ground of this study was due to the numerous studies that highlighted the adoption of OC (supportive and innovative culture) as unique resources to gain competitive advantage and enhance performance (Lok & Crawford, 2004; Ogbonna & Harris, 2000).

Last but not least, the BE of SMEs can moderate the performance of SMEs (Bendickson, Gur, & Taylor, 2016). Several past studies also explored the moderating impact of BE (Chow, 2006; Prajogo, 2016; Prajogo & Oke, 2016). Studies have also suggested the impact of BE on SME performance.

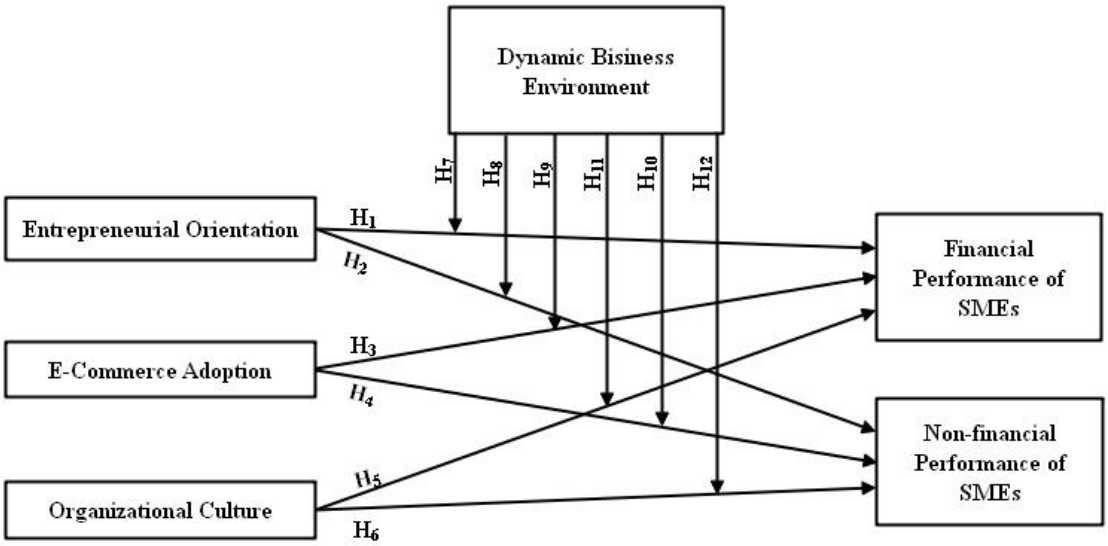

Figure 2.1 The research framework of the study

2.7 Underpinning Theories

Entrepreneurship mainly concerns on how SMEs generate opportunities and achieve improved performance. Proposed framework is supported by three theories (RBV, TAM and Contingency theory). There are several theoretical approaches to assess the available resources and SME performance. In particular, the RBV theory was adopted to elucidate the relationships of EO and OC (as the independent variables) with SME performance (as the dependent variable). The TAM was also adopted to elucidate the relationship between ECA (as an independent variable) and the performance of SMEs. Lastly, the contingency theory was used to elucidate the moderating role of BE in the hypothesised relationships.

2.7.1 Resource-based view (RBV) theory

The RBV theory is revealed to be the best theory to elucidate the performance of SMEs (Ketchen & Hult, 2007). This theory complements other market-related theories (Knight, 2000; Terziovski, 2010). According to the market-based approaches, it is critical for SMEs to identify their performance in order to

determine their position in the market, as compared to their competitors (Jeffcoate, Chappell, & Feindt, 2002). Wernerfelt (1984), Developed the RBV theory and regarded the strategies for the performance of SMEs as a "bundle of resources". Following that, Barney (1991), introduced the RBV theory with another point of view that of looking inward into the resources of SMEs to evaluate their performance (Cragg, Caldeira, & Ward, 2011). According to the RBV theory, SMEs have the capability to achieve sustainability in their return by carefully utilising the available resources (Barney, 1991; MM Caldeira & Ward, 2001; Dwivedi, Papazafeiropoulo, & Scupola, 2009; Galbreath, 2005).

There is no universal definition of resources in the literature (Peppard & Ward, 2004). Amit and Schoemaker (1993), described resources as stocks of available factors that are under the ownership and control of the SMEs. Based on this definition, resources can include "assets, capabilities, processes, attributes, knowledge, and know-how that are possessed by SMEs that can be used to formulate and implement strategies to improve their performance" (Rivard, Raymond, & Verreault, 2006). Moreover, in order for SMEs to gain higher performance, resources that are not available for other operating SMEs in the market can be termed as competitive resources. Thus, resources that lead to sustainable competitive advantage are unique and valuable to SMEs from the perspectives of competing SMEs (Schulich, 2004). Therefore, competitive advantage of an organization stems from implementation of a strategy focused on value creation which is unique among its competitors (Salunke, Weerawardena, & McColl-Kennedy, 2013).

According to the RBV theory Barney (1991), the resources of SMEs must possess the following (VRIN) characteristics to gain a competitive advantage for higher performance:

I. **"Valuable**: The resource must have strategic value to the organization";
II. **"Rare**: The resource must be unique and rare to find";
III. **"Imperfect imitability**: It must not be possible to imitate or copy correctly";
IV. **"Non-substitutability**: Competitors cannot substitute the resource with other alternative support to achieve the same results".

Dwivedi et al. (2009), highlighted the importance of the RBV theory, as it magnifies the resources that SMEs possess, including both tangible and intangible resources. However, the RBV theory assumes that SMEs fully utilise their resources (Dwivedi et al., 2009; Rivard et al., 2006). Hence, past studies that employed the RBV theory to support the EO contribution focused on the impact of EO over the performance of SMEs. Studies have demonstrated the usefulness of RBV theory. For instance, Mário Caldeira and Ward (2003) used the RBV theory to understand positive entrepreneurial plans of SMEs in the manufacturing sector.

Within the context of resources, OC is also part of the unique intangible assets that influence the performance of SMEs (Waters & Lo, 2012). Considering that OC was assessed as one of the independent variables in this study, the selection of the RBV theory as part of the theoretical framework was deemed fitting. The adoption of a particular OC (e.g. bureaucratic, supportive, or innovative) is regarded as a unique resource for SMEs to achieve a competitive advantage, resulting in improved performance (Lok & Crawford, 2004; Ogbonna & Harris, 2000). Besides that, Qureshi, Hayat, Ali, and Sarwat (2011), similarly adopted the RBV theory to assess the influence

of job satisfaction and organizational commitment on the relationship with employ performance. The theory was also used by Obradovich (2009), to determine the influence of leadership and culture on the financial performance of troubled firms. As for the present study, the RBV theory was used to elucidate the relationships of EO and OC with the performance of SMEs in terms of financial and non-financial performance.

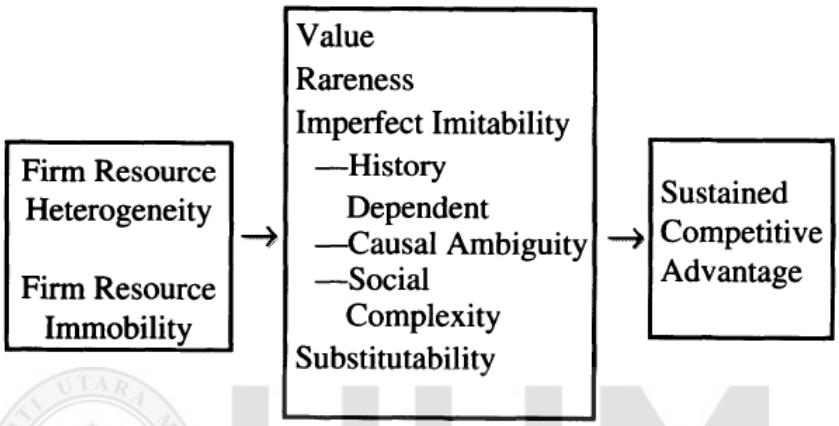

Figure 2.2 RBV model of Barney (Barney, 1991)

2.7.2 Technology acceptance model (TAM)

Technology acceptance model was developed to clarify and forecast the decision to adopt emerging technologies by tracking the effect of external influences on internal expectations and attitudes (Davis, Bagozzi, and Warshaw (1989). The model suggested a causal link between perceived usefulness (PU) and perceived ease of use (PEOU) as well as the attitude, behavioural intention, and actual adoption and use of e-commerce by the user (Davis et al., 1989).

Basically, PU encapsulates the perception of a user towards a specific innovation, in improving their work performance. Meanwhile, PEOU records expectations of the users towards the efforts in using that specific innovation (Davis et al., 1989). Both PU and PEOU are said to determine the users' attitude (AT) to use a specific innovation,

while PU and AT jointly determine behavioural intention (BI) to use a particular innovation. Last but not least, BI determines the actual use of the innovation (Gentry & Calantone, 2002).

The developed TAM has incorporated various findings on the information systems (IS). Hence, usage of TAM is extensive in the literature on diffusion of innovation. The use of TAM is also witnessed in studies focusing on basic computer applications, such as email, word processing, and spreadsheet software among individuals (Davis et al., 1989; F. Davis, Venkatesh, , 1996; Mathieson, 1991). Over the years, congruent to development of internet-based technologies, researchers have attempted to test the applicability of TAM on internet-based businesses (F. Davis, Venkatesh, , 1996), e-commerce (Lu, Yu, Liu, & Yao, 2003), telemedicine (Karahanna, Straub, & Chervany, 1999), and digital library systems (Thong, Hong, & Tam, 2002).

For instance, Gentry and Calantone (2002), demonstrated the significance of TAM in explaining the variance in behavioural intention within a procurement context, which was at least partially attributed to the two specific beliefs of TAM (Gentry & Calantone, 2002). From the perspective of less developed countries (LDC) researchers have extended TAM to understand the reasons for lower significance of e-commerce adoption based on a sample of five Arab countries (i.e. Jordan, Egypt, Saudi Arabia, Lebanon, and the UAE). The research intended to predict the aspects that lead to the e-commerce adoption, further concluded the successful transfer of TAM and recommended the need to explore the cultural elements.

It is crucial to note that the appropriateness and comprehensiveness of TAM have remained in question despite its extensive use in elucidating users' technology acceptance. Certain past studies criticised the model for assuming both PU and PEOU

as the primary determinants of users' acceptance of e-commerce in all cases (D. Y. Kim, Park, & Morrison, 2008). For example, Davis (1989), previously argued that other potential variables that affect PU and PEOU should be explored and the predictive power of the model should be improved in order to enhance the explanation of technology acceptance among users according to specific contexts. This highlighted the limit and difficulty in improving the predictive power of TAM, which further elaborated the need to incorporate additional constructs to explain better the behavioural intention to adopt e-commerce (Legris, Ingham, & Collerette, 2003; Lopez-Nicolas & Molina-Castillo, 2008).

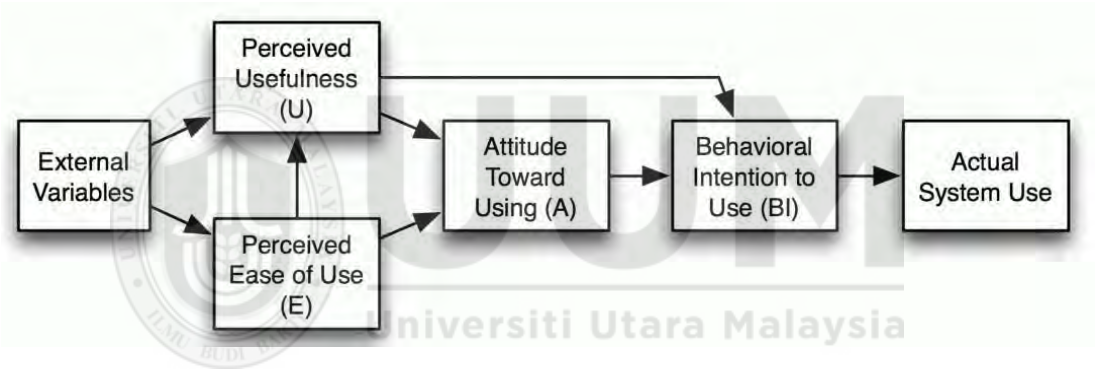

Figure 2.3 TAM model (Davis et al., 1989)

2.7.3 Contingency theory

The contingency theory, which was developed by (Lee & Miller, 1996) is a behavioural theory proposing the absence of a standard way to manage SMEs or to make decisions (J. Lee & Miller, 1996). In other words, SMEs should have secondary plans, and these plans can be the comparative edge of firms for the time of difficulty. The ability to perform depends on the nature of BE and the extent to which SMEs need to consider the situation (Shafroth, Friedman, Auble, Scott, & Braatne, 2002). Lorsch (1967), stressed the importance of BE in shaping and affecting the actions and decisions of

SMEs, where their activities and arrangements should be in line with the demands of the environment in order to achieve the best performance.

The environment influences how SMEs operate, and this can have a significant effect on their performance. Studies have demonstrated the significance of BE in provided that prospects or pressures to the operating SMEs (Ensley et al., 2006; Frank & Cook, 2010; Shepherd & Wiklund, 2005).

However, the limitation of other management theories that consider BE as a factor that affects the survival of SME has given rise to the formation of contingency theory. The contingency theory assumes that SMEs are organic systems. Hence, the environment and the operation of SMEs are linked, as well as within and between the various sub-systems (Venkatraman & Prescott, 1990).

Several contingency approaches have been introduced, such as business strategy (Parnell, Lester, Long, & Köseoglu, 2012), leadership (Franco & Matos, 2015), individual behaviour (Bølviken, 2000; Gordon & Narayanan, 1984; Lawrence & Lorsch, 1969; Moghimi & Subramaniam, 2013; Woodward, 2003), and decision-making (Vroom & Yetton, 1973). The contingency theory rejects the notion of universal management of the environment. It is anticipated that small and medium-sized companies should have strategies, identify their goals and priorities, and devise policies in compliance with the prevalent environmental conditions.

In other terms, management practises, actions and strategies will adapt to environmental change. Theoretically, the "cash stream" is not the only thing that exists in order to achieve a strategic edge. Small and medium-sized companies must know about their

context to build productive to reliable systems and practises, relevant skills and technologies as needed by their BE (Lingard & Francis, 2006).

In view of the above, the contingency theory was adopted in the present study considering the need for SMEs to exploit opportunities in their BE. According to the requirements of their BE, SMEs can improve their operation and performance through appropriate changes and contingency or secondary plans (Plan B).

2.8 Chapter Summary

The research literature indicates several reoccurring items as strong independent variables for entrepreneurship. Several of those variables are identified in this study too. The areas of the research study cover the independent variables; (entrepreneurial orientation, e-commerce adoption and organizational culture) a moderating variable namely dynamic business environment and two dependent variables (financial and non-financial performance of SMEs). How these IVs explains the performance of SMEs. Additionally, what methodology should be used while adopting e-commerce technologies, and how organizational culture improves the performance of SMEs?

Purpose of the current study was to analyse the moderating effect of dynamic business environment on the relationship among entrepreneurial orientation, e-commerce adoption and organizational culture with financial & non-financial performance of SMEs. This chapter introduced and detailed the three main independent variables, i.e. entrepreneurial orientation, e- commerce adoption and organizational culture. This chapter also discussed in detail the relationship between entrepreneurial orientation, e-commerce adoption, organizational culture and dynamic business environment with performance of SMEs.

Overall, Chapter Two reviewed related literature on entrepreneurship and SMEs in Pakistan. The chapter also reviewed the findings of past studies and existing empirical works on EO, ECA, OC (independent variables), BE (moderating variable), and the financial and non-financial performance of SMEs (dependent variables). All constructs were reviewed and argued in order to suggest a better explanation of the developed theoretical framework and the formulation of hypotheses to address the research questions. Framework of the study was also supported by three theories Resource Base Vied, Technological Acceptance Model and Contingency theory. The subsequent chapter (Chapter Three) describes and discusses the methodology used in this study.

CHAPTER THREE
METHODOLOGY

3.1 Introduction

Overall, this chapter describes the methodology used in this study. A quantitative approach was adopted in this study that focused on the essential business strategies employed among the SMEs in Pakistan. In particular, a survey method was primarily used to collect data on the perception of respondents (Zaheer, Rehman, & Ahmad, 2006). This chapter discusses the population and sample size, instrumentation, pre-test and pilot test, and sampling strategy. The data collection in this study was conducted in two stages. The first stage involved the pilot test to ensure the reliability of the instrument, while the second stage involved the actual data collection using the instruments in order to assess the relationships between key constructs.

3.1.1 Research design

Study architecture is a structure that describes the processes and techniques used for data collection and study (Zikmund, 2000). Sekaran and Bougie (2009) these are into three separate study methods , i.e. exploratory research design, concise research design, and causal research design / hypothesis checking. (Sekaran & Bougie, 2009). This thesis uses an exploratory research approach focused on the complexity of the research issue.

Deductive approach, which deals from theory to literature, followed by model and data, was carried out for this study. This approach mainly involves quantitative and numeric values. Meanwhile, the inductive approach deals from data to theory without involving

numeric values in data and typically involves interview data that is likely to be biased in nature (Sekaran & Bougie, 2009).

As this study primarily aimed to assess the moderating role of BE in the relationships of EO, ECA, and OC with SME performance in the Pakistani textile sector, this study exclusively focused on the testing of hypotheses and correlation approach to assess these hypothesised relationships within a theoretical framework.

In addition, the survey approach was adopted in this study to collect the data from the key respondents. The items in the survey instrument were adopted from prior studies that assessed similar constructs. Thus study utilised survey research due to its cost-effectiveness and a wider scope / coverage (Phillips & Burbules, 2000). Additionally, this study used the cross-sectional research setting as the data was gathered from the respondents at one point in time (Phillips & Burbules, 2000). Dependent upon the nature of the construct, seasonality of the industry, a cross-sectional study was deemed to be more appropriate for this study (Phillips & Burbules, 2000).

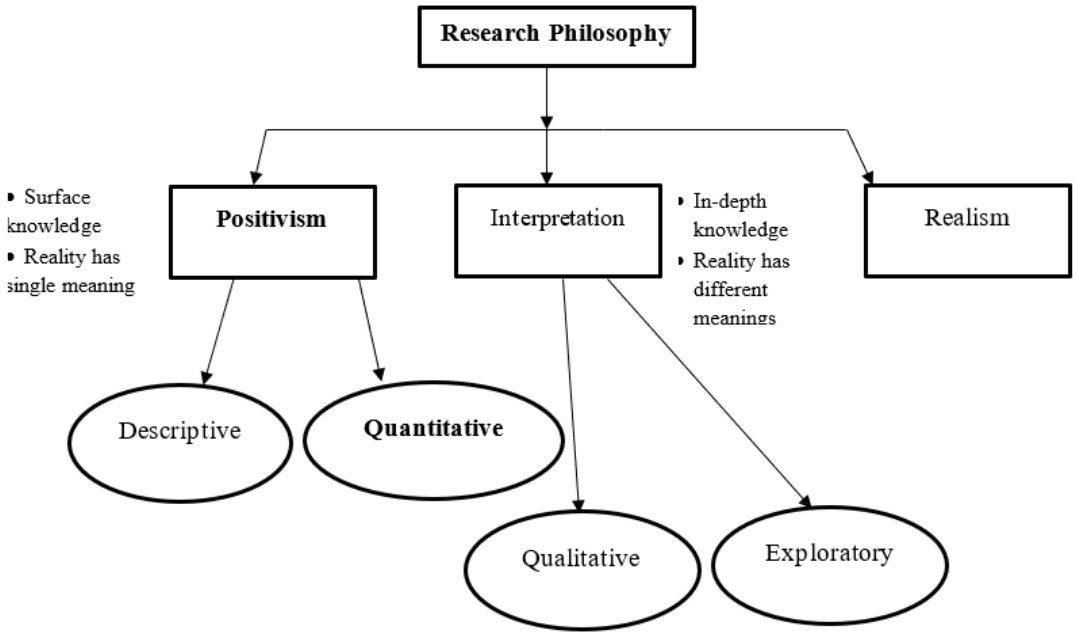

Figure 3.1 Research philosophy (Phillips & Burbules, 2000)

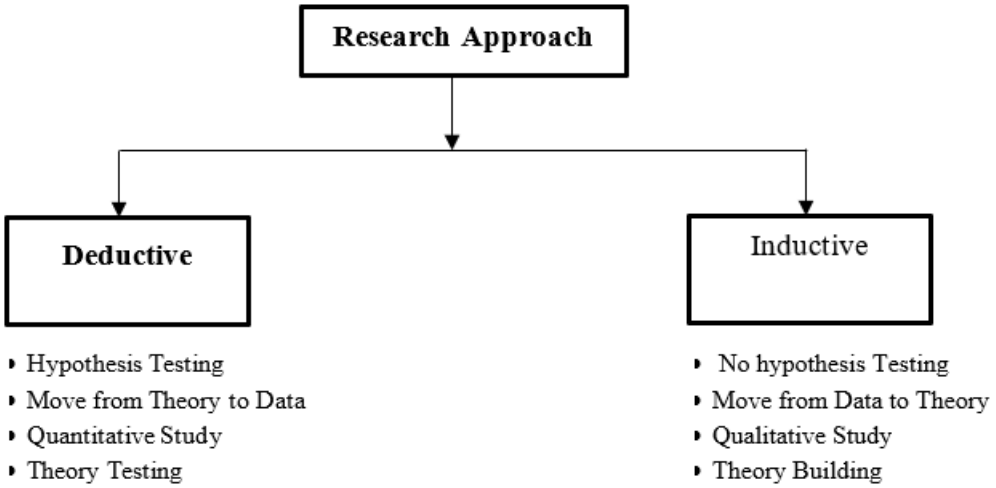

Figure 3.2 Research approach (Phillips & Burbules, 2000)

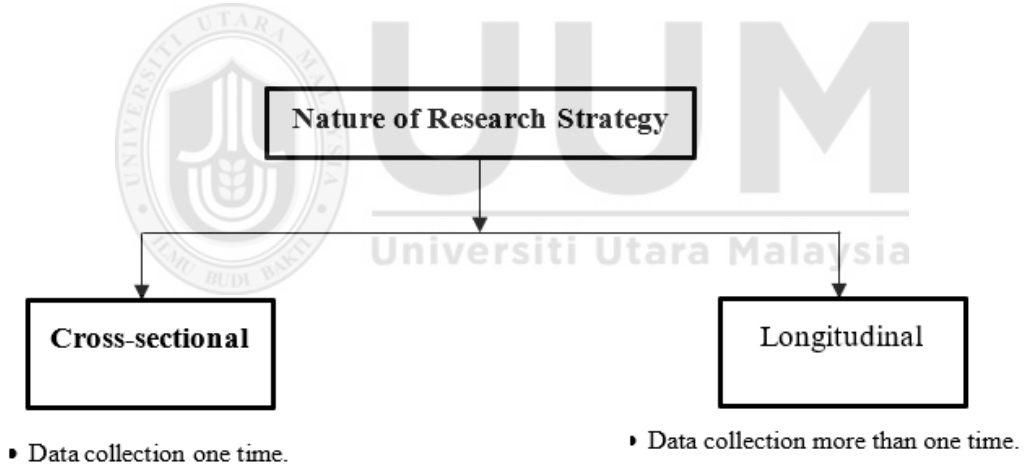

Figure 3.3 Research strategy (Phillips & Burbules, 2000)

3.2 Population and Sampling

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sampling strategy. The data collection in this study was conducted in two stages. The first stage involved the pilot test to ensure the reliability of the instrument, while the second stage involved the actual data collection using the instruments in order to assess the relationships between key constructs.

3.2.1 Research design

Research design is the framework that elaborates the procedures and methods employed for collection and analysis of data (Zikmund, 2000). Sekaran and Bougie (2009) have bifurcated into three distinct research designs, i.e. exploratory research design, descriptive research design, and explanatory research design/hypothesis testing (Sekaran & Bougie, 2009). This study employs exploratory research design based on the nature of the research problem.

Deductive approach, which deals from theory to literature, followed by model and data, was carried out for this study. This approach mainly involves quantitative and numeric values. Meanwhile, the inductive approach deals from data to theory without involving numeric values in data and typically involves interview data that is likely to be biased in nature (Sekaran & Bougie, 2009).

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Table 3.1
Measures of Performance of SMEs

No.	Code	Items	Reference
		Financial Performance	(Harif et al.,
1	FP1	Profitability growth of your firm	2012b)
2	FP2	Cash flow position of your firm	
3	FP3	Return on investment of your firm	
4	FP4	Inventory turnover of your firm	
5	FP5	Budgeted versus actual remain closer	
		Non-Financial Performance	
6	NFP1	Position of customer satisfaction in your firm	
7	NFP2	Product or service quality of your firm	
8	NFP3	Market share growth of your firm	
9	NFP4	Increment in employee efficiency of your firm	

3.2.2 Entrepreneurial orientation

EO was part of this study according to the previous modified work of (Simon, Stachel, & Covin, 2011). In particular, EO in this study, referred to the entrepreneurial behaviour indicating the extent of pro-activeness, risk-taking, and innovativeness displayed in their organizations (Covin & Slevin, 1989b). Referring to Table 3.2, this independent variable was operationalised as a multidimensional construct (i.e. innovativeness, pro-activeness, and risk-taking) that was measured using nine adopted items developed by Covin and Slevin (1989) developed on the earlier works of Khandwalla (1977). A five-point Likert scale was used with the endpoints of strongly disagree (1) and strongly agree (5), where the respondents were required to describe their satisfaction towards the items that reflect their organization's strategies.

Table 3.2
Measures of Entrepreneurial Orientation

No.	Code	Items	Reference
		Risk-taking	(Covin & Slevin, 1989b)
1	RT1	"In general, the top managers of my firm have strong proclivity for high-risk projects".	
2	RT2	"In general, the top managers of my firm have strong proclivity for high-risk projects".	
3	RT3	In general, the top managers of my firm believe that owing to the nature of the environment is best to explore it gradually via timid, incremental behaviour".	
		Pro-activeness	
4	PRO1	In general, the top managers of my firm favour a strong emphasis on the marketing of tried and true products or services".	
5	PRO2	In general, the top managers of my firm believe that owing to the nature of the environment, bold, wide-ranging acts are necessary to achieve the firm's objectives".	
6	PRO3	When confronted with decision-making situations involving uncertainty, my firm typically adopts a cautious, (wait-and-see) posture in order to minimise the probability of making costly decisions".	
		Innovativeness	
7	INN1	In general, the top managers of my firm favour a strong emphasis on R&D, technological leadership, and innovations".	
8	INN2	How many new lines of products or services has your firm marketed in the past five years? Many new lines of products or services".	
9	INN3	How many new lines of products or services has your firm marketed in the past five years? Changes in product or service lines have been quite dramatic".	

3.2.3 E-commerce adoption

Based on the literature, e-commerce adoption operationalized from the SME's level perspective (Daniel, Wilson, & Myers, 2002; Dovesi et al., 2009; Grandon & Pearson, 2004; Lertwongsatien & Wongpinunwatana, 2003) all use e-commerce adoption as uni-

dimensional construct. As shown in Table 3.3, 12 adopted items from (Wanyoike, Mukulu, & Waititu, 2012) were used to measure ECA in this study. Accordingly, the respondents were required to report their satisfaction and assessment regarding the impact of ECA on SME performance on a five-point Likert scale.

Table 3.3
Measures of E-Commerce Adoption

No.	Code	Items	Reference
1	ECom1	"E-commerce has led to the simplification of work routine".	(Wanyoike et al., 2012)
2	ECom2	"E-commerce has led to reliable business communication".	
3	ECom3	"E-commerce has led to efficient coordination among departments".	
4	ECom4	"E-commerce has improved customer satisfaction".	
5	ECom5	"E-commerce has provided new business opportunities".	
6	ECom6	"E-commerce has led to the development of new products and services".	
7	ECom7	"E-commerce has led to a reduction in operation costs".	
8	ECom8	"E-commerce has led to increased productivity".	
9	ECom9	"E-commerce is compatible with business needs".	
10	ECom10	"It is easy to implement e-commerce".	
11	ECom11	"It is easy to test e-commerce before full implementation".	
12	ECom12	"Positive results of using e-commerce are clearly visible".	

3.2.4 Organizational culture

OC is a universal concept with a system of values and beliefs that governs an organization. The shared values and beliefs strongly influence how the management of an organization dress, work and even perform their job. For this study, the adopted OC measures from (Isa, Ugheoke, & Noor, 2016) that were developed by (Quinn, 1988) and also tested by (Deshpandé & Farley, 1999) were considered. The study incorporated 16 items (Table 3.4) to measure the impact of OC on the performance of

SMEs according to a five-point Likert scale with the endpoints of strongly disagree (1) and strongly agree (5).

Table 3.4
Measures of Organizational Culture

No.	Code	Items	References
1	OC1	"This organization is a very personal place, is like an extended family, people seem to share things together".	(Deshpandé & Farley, 1999; Isa et al., 2016; Quinn, 1988)
2	OC2	"This organization is a very dynamic and entrepreneurial place where people are willing to take risk".	
3	OC3	"This organization is a formalised and structural place with the established procedure that generally governs what people do".	
4	OC4	"This organization is job oriented a major concern is getting the job done, without much personal involvement".	
5	OC5	"The head of this organization is generally considered to be a mentor or a father or mother figure".	
6	OC6	"The head of this organization is generally considered to be an entrepreneur, an innovator, or a risk-taker".	
7	OC7	"The head of this organization is generally considered to be a coordinator, an organiser, or an administrator".	
8	OC8	"The head of this organization is generally considered to be a producer or a hard-driver".	
9	OC9	"The glue that holds this organization together lies in loyalty and tradition, commitment to this firm runs high".	
10	OC10	"The glue that holds this organization together lies in commitment to innovation and development, there is an emphasis on being the first".	
11	OC11	"The glue that holds this organization together lies in the formal rules and policies that maintain a smooth-running institution".	
12	OC12	"The glue that holds this organization together lies in the emphasis on tasks and goal accomplishment, production orientation is commonly shared".	
13	OC13	"The organization emphasises human resources and high cohesion and morale".	
14	OC14	"This organization emphasises growth and the acquisition of new resources, the readiness to meet new challenges is important".	
15	OC15	"This organization emphasises permanence and stability and efficient and smooth operations".	
16	OC16	"This organization emphasizes competitive actions and achievement, measurable goals".	

3.2.5 Dynamic Business Environment

Dess and Beard (1984), described BE as environmental dynamism, environmental munificence, and environmental complexity and classified and developed essential indicators for the operationalisation of BE. Hence, BE in this study referred to the degree to which an environment can provide the required resources, assistance, and support for SMEs to operate with improved sustainability and performance, "Dynamic Business Environment". BE reflects the capacity of an environment in encouraging SMEs in the marketplace (Castrogiovanni, 1991). As shown in Table 3.5, BE in this study was operationalised as a moderating variable that was measured using six adopted items from (Prajogo, 2016). This one-dimensional construct was measured according to a five-point Likert scale with endpoints of strongly disagree (1) and strongly agree (5).

Table 3.5
Measures of Dynamic Business Environment

No.	Code	Items	Reference
1	BE1	"Environmental changes in our market are intense".	(Prajogo, 2016)
2	BE2	"Our clients regularly ask for new products and services".	
3	BE3	"In our market, changes are taking place continuously".	
4	BE4	"In a year, our market has changed significantly".	
5	BE5	"In our market, the volume of products and services to be delivered change fast and often".	
6	BE6	"The competition in our market is intense".	

3.3 Questionnaire Design

The phase of questionnaire design rests solely on the strength of survey instrument. It is imperative to ensure the alignment of the instrument content with research questions and objectives. Besides that, the opinions of experts in the related field of study should be obtained to ensure that the developed instrument measures what it is designed to measure. Moreover, the developed instrument should have clear, engaging, and

understandable wording, response options, and sequence of the questions for the respondents to comprehend and respond with ease. The provided instructions should be clear and precise to avoid any ambiguous responses from the respondents.

For this study, a close-ended format was considered because the respondents were deemed capable of making quick decisions in selecting their responses among the options provided. Besides that, a close-ended format would also reduce the time required for data entry leading to analysis (Johnson & Onwuegbuzie, 2004). A five-point Likert scale was similarly used. (McKelvie, 1978) strongly supported the use of a five-point Likert scale, rather than a seven-point Likert scale, based on the results of cross-sectional reliability of the instrument.

Table 3.6
Description of Instrument

Description	**No. of Items**	**References**
Section One: Demographic information of respondents	5	-
Section Two: Performance of SMEs	9 (5,4)	(Harif et al., 2012b)
Section Three: Entrepreneurial orientation	9 (3,3,3)	(Covin & Slevin, 1989b)
Section Four: E-commerce adoption	12	(Wanyoike et al., 2012)
Section Five: Organizational culture	16	(Deshpandé & Farley, 1999; Isa et al., 2016; Quinn, 1988)
Section Six: Dynamic Business Environment	6	(Prajogo, 2016)
	Total = 57	

3.4 Pre-Test

For this study, the pre-test involved three experts from the National University of Science & Technology Islamabad, Foundation University in Pakistan and Superior University Lahore. These appointed experts were required to provide their expert opinions on the appropriateness and representativeness of the developed instrument (Sekaran & Bougie, 2009). They were also requested to examine any redundant, over-represented, or under-represented items.

Apart from that, opinions from the practitioners in the textile sector on the questioners were acquired. Three questioners were sent to three SMEs in the textile sector to determine whether they adequately cover the reported problems of the textile sector and whether it is easy to understand and cover all aspects of the framework. The SMEs checked and provided their opinions about the questioners.

3.5 Pilot Test

This thesis uses an exploratory research approach focused on the complexity of the research issue. A sample evaluation was performed, including respondents from the same research group, in order to gather actual data. It was also used to assess the period needed for respondents to complete the questionnaire survey in order to evaluate the accuracy and suitability of the nature and structure of the study. The opinions and comments from the experts were acquired to ascertain the appropriateness of the language and structure of the adopted instrument. The testing of the theoretical constructs, reliability of an instrument is essential aspects that determine the reliability of the measurement and the reproducibility of the obtained results. Cronbach's alpha as a reliability which reflects the internal consistency of the measures (Saraph, Benson, & Schroeder, 1989), was applied in the present study for each measure. According to

Onwuegbuzie and Daniel (2002), Cronbach's alpha coefficient is a standard method to estimate the internal consistency of items.

The obtained data were analysed using IBM SPSS (version 24). In particular, the reliability of each construct was separately tested. The obtained results of reliability analysis in Table 3.7 revealed that most of the recorded Cronbach's alpha coefficient for the independent variables exceeded the cut-off value of 0.7 (Gliem & Gliem, 2003). The reliability of a construct with Cronbach's alpha coefficient of above 0.50 is deemed acceptable and satisfactory. Meanwhile, Nunnally (1978), suggested 0.7 as the minimum advisable level in order to establish modest reliability of a construct.

Table 3.7
Reliability Analysis of Constructs

Constructs	**No. of Items**	**Cronbach's Alpha Coefficient**
Entrepreneurial orientation	9	0.763
E-commerce adoption	12	0.908
Organizational culture	16	0.929
Dynamic Business Environment	6	0.761
Financial performance	5	0.873
Non-financial performance	4	0.776
	Total = 52	

3.6 Data Collection Strategy

The actual data collection for this study was conducted from May 2018 to October 2018 (six months). In order to achieve the required number of responses, this study opted for a self-administered survey considering the secretive nature of the SMEs in Pakistan.

Firstly, an official letter introducing the university, the researcher and the study was obtained from Othman Yeop Abdullah Graduate School of Business (OYAGSB). The

letter assisted in persuading cooperation from potential respondents. The respondents received the cover letter highlighting the purpose and background of the study followed by the four-page questionnaire survey.

To increase the willingness of the respondents to participate in the questionnaire survey, as highlighted in the cover letter, the study assured the respondents that their responses were strictly private and confidential, and data was collected form the key informers.

3.7 Data Analysis Technique

The study employed a number of techniques for data analysis. Firstly, data screening and data cleaning was done in order to deal with any missing values, removing the outliers and making the data normal. The normality tests were followed by analysis using descriptive statistics such as frequency distributions and percentages regarding the demographics. Furthermore, reliability and validity tests were conducted to minimise the measurement errors.

Partial Least Squares–Structural Equation Modelling was implemented after maintaining data normality. SEM is an important method to examining the cause and effect of the interaction between latent constructions (Hair, Hult, Ringle, & Sarstedt, 2016). Usually, PLS-SEM is a path mapping mathematical tool used to construct dynamic multivariate analysis of the interaction between observable and latent variables (Vinzi, Trinchera, & Amato, 2010). Afthanorhan (2013), stresses the accurate and relevant confirmatory factor analysis is better done through PLS-SEM route mapping. For SEM, bootstrapping method was used with 5000 sampling, followed by inspection of the p value where lesser than 0.05 was considered as acceptable (Hair et al., 2010).

The ability of PLS-SEM to evaluate latent variables and their relationship with items and other variables has resulted in being widely used and accepted (Hair et al., 2012; Henseler et al., 2009). Flexible assumptions regarding normality of delivery make it possible for PLS-SEM to be more flexible when processing non-normal results (Henseler et al., 2009). Therefore, this study used Smart PLS v 3.2.8 to determine the outer model (reliability and validity) and inner model (path coefficients and predictive relevance) where a t-value greater than 1.96 was considered acceptable as suggested by (Hair et al., 2010).

3.8 Chapter Summary

Overall, this chapter explained the methodology used in this study. This descriptive study employed a survey method to collect the required data. Besides that, positivism was considered as the research philosophy for this study. Adding to that, this study adopted a cross-sectional method for data collection and employed a deductive approach. This chapter described the selection of single stage stratified, simple random sampling single stage and use of PLS-SEM for data analysis using SmartPLS3 (version 3.2.8). unit of analysis of the study was organization. Moreover, this chapter discussed the target population, sampling frame, sample size and the justification of the selection of owners or managers of SMEs as the key informant. Additionally, this chapter adopt the Instruments based on the review of relevant literature for all variables. Lastly this chapter also briefly explains about data analysis techniques which were adopted for the sake of data analysis. The analysis of data and the obtained results and findings for this study are presented in the subsequent chapter.

CHAPTER FOUR
DATA ANALYSIS AND RESULTS

4.1 Introduction

This chapter opens with description of data collection procedure and response rate. The outcomes of the initial data screening and preliminary analysis, including missing values, outlier assessment, normality test, and multicollinearity test, are also presented. In addition, this chapter also reports the demographic profile of the respondents and descriptive results of all constructs. Besides that, the key results of this study are presented in two main sections: (1) the assessment of measurement model (including item reliability, internal consistency, convergent validity, and discriminant validity); (2) the assessment of structural model (including the significance of path coefficients, variance explained, effect size, and predictive relevance of the model). Last but not least, the obtained results of complementary PLS-SEM analysis on the moderating impact of dynamic business environment on the structural model are presented in this chapter.

4.2 Response Rate

This study obtained data from SME owners / managers in Pakistan's textile sector. In this study, the questionnaire sets were personally administered. Personal visits to the respondents are said to increase the response rate (Sekaran, 2010). The study distributed 520 questionnaire sets and successfully obtained 403 questionnaire sets, resulting in a response rate of 77.5%. The data from all 403 questionnaire sets were used for the subsequent analysis using IBM SPSS (version 24). As shown in Table 4.1, five outlier cases and five wrongly filled responses were found. Hence, 10 questionnaire sets were excluded from the ensuing analysis, resulting in a valid

response rate of 75.5%. The recorded response rate was deemed comparable to other past studies (Chan, Ngai, & Moon, 2017; Mohammed & Obeleagu-Nzelibe, 2014).

Table 4.1
Response Rate

Response	Frequency
Number of distributed questionnaire sets	520
Returned questionnaire sets	403
Returned and usable questionnaire sets	393
Excluded outliers (5) and wrongly filled (5) questionnaire sets	10
Questionnaire sets not returned	117
Response rate	77.5%
Valid response rate	75.5%

4.3 Data Examination and Screening

Screening, editing and basic data processing are required prior to any multivariate study. This is therefore critical that data analysis is carried out in order to detect and avoid any potential breach of the simple assumptions (Hair, 2010). Therefore, the first data analysis offers a deeper interpretation of the data obtained. Missing details, outliers, normality, and multicollinearity have all been thoroughly analysed and handled.

4.3.1 Analysis of missing data

In the original dataset, 21,268 data points were recorded. However, there were 242 missing data points, accounting for 1.14%. In particular, there were 52 missing values for the performance of SMEs, 29 missing values for EO, 54 missing values for ECA, 69 missing values for OC, and 38 missing values for BE. Although there is no established threshold of missing values, the acceptable missing rate for such case that does not contribute any significant impact on data analysis is below 5% (B. Tabachnick, 2012). Moreover, the use of mean substitution is suggested if the total missing values

is lesser than 5% to avoid data alteration issue (Little Roderick & Rubin Donald, 1987; B. Tabachnick, 2012). Therefore, the missing values in this study were replaced using mean substitution (B. Tabachnick, 2012).

4.3.2 Outlier analysis

Outliers may randomly occur and often indicates a measurement of error or the population passes into a difficult partition. Assessing the cases of outliers is an important step because the presence of problematic outliers distorts the outcomes of statistical analysis (Hair, Ringle, & Sarstedt, 2013). In fact, outliers misrepresent statistics and may result may be disturbed (Maronna, Martin, Yohai, & Salibián-Barrera, 2018).

According to Leys, Klein, Dominicy, and Ley (2018), Mahalanobis D2 measure was used to identify multivariate outliers for exclusion. Hence, (Mahalanobis) D2 was calculated using linear regression, followed by Chi-square values. Considering that there were 403 valid responses, the degree of freedom in this study was set at 6. Referring to the Chi-square table ($p < 0.001$), the criterion was 20.355; in other words, multivariate outliers that recorded (Mahalanobis) D2 values of 20.355 and more should be excluded to obtain accurate results (Leys et al., 2018). Hence, five questioners (27, 49, 255, 286, 311) were excluded in result of the subsequent assessment.

4.3.3 Descriptive analysis

According to D'Agostino (2017), values of skewness and kurtosis should less than ±2.0; skewness of more than 3 and kurtosis of more than 10 indicate potential problem and values of more than 20 may lead to more critical issues during the analysis (Kline,

2015). Hence, based on this recommendation, both skewness and kurtosis of less than 2 were considered for the obtained data in this study.

Table 4.2
Results of Descriptive Analysis

Variables	N	Mean	Std. Deviation	Skewness	Kurtosis
FP	393	3.7730	.75389	-0.327	-0.392
NFP	393	3.8104	.79399	-0.327	-0.627
EO	393	3.6503	.64918	0.220	-0.442
ECA	393	3.8368	.64536	-0.132	-0.652
OC	393	3.7362	.70210	-0.372	-0.380
BE	393	3.8568	.61075	-0.414	0.110

EO denotes entrepreneurial orientation; ECA denotes e-commerce adoption; OC denotes organisational culture; BE denotes dynamic business environment; FP denotes financial performance of SMEs; NFP denotes non-financial performance of SMEs

4.3.4 Normality test

After the exclusion of outliers, the normality test was conducted on the obtained data. Ideally, the data should be normally distributed for data analysis, including structural equation modelling (SEM) (Hair et al., 2013). Nevertheless, PLS-SEM is a less rigorous analysis as there are no assumptions on the data normality and distribution (Hair et al., 2013; Henseler, Ringle, & Sinkovics, 2009; Temme, Kreis, & Hildebrandt, 2010). Although PLS-SEM does not require normality in data for running an analysis (Hair et al., 2013).

According to Hair et al. (2013), "data normality refers to the shape of the distribution of data for an individual metric variable and its correspondence to the normal statistical distribution as the benchmark. In order to determine data normality" (i.e. assessing possible deviation), this study opted for the statistical method of histogram chart (P. Curran, West, & Finch, 1996; Hair et al., 2016; Kline, 2015).

4.3.5 Multicollinearity

Multicollinearity occurs when two or more variables are related (Hair et al., 2016). It is a critical issue when the independent variables are highly correlated (Hair et al., 2016; Pallant, 2010). This implies that these variables reflect similar information and not all are required in the same analysis due to the presence of error terms. Furthermore, the case of multicollinearity increases the standard error of the regression coefficient consequently, the significance of the coefficients becomes less reliable. The most reliable test to determine multicollinearity is the use of variance inflation factor (VIF) with the threshold values of between 1 and 5 (Hair et al., 2016; Pallant, 2010), which was applied in this study. According to Hair et al. (2013); Pallant (2010), VIF of more than 5 indicates correlation between independent variables. As shown in Table 4.3, the recorded values ranged between 1.761 and 2.701, which were less than 5. Therefore, the data was deemed free from multicollinearity issue and appropriate for the subsequent analysis. However, this study examined the multicollinearity, as suggested by (Hair et al., 2013). The results of VIF, Table 4.3 shows the values of VIF are below from (2.701) and the limit is 1-5 (Hair et al., 2016).

Table 4.3
Correlations Between Variables

Variables	FP of SMEs	NFP of SMEs
BE	**1.772**	**1.77**
ECA	**1.761**	**1.761**
EO	**2.164**	**2.164**
OC	**2.701**	**2.701**

(Variance inflation factor) EO denotes entrepreneurial orientation; ECA denotes e-commerce adoption; OC denotes organisational culture; BE denotes dynamic business environment; FP denotes financial performance of SMEs; NFP denotes non-financial performance of SMEs

4.3.6 Demographic profile of respondents

The participating owners or managers of SMEs in Pakistan's textile sector were required to indicate several key aspects, specifically the number of employees, type of

firm, time in firm, and their job position. The descriptive results for each aspect are tabulated in Table 4.4. Firstly, by those with 1 to 35 employees (34.8%) and 36 to 250 employees (65.2%). Meanwhile, there were three types of firms, namely manufacturing, services, trading. A large proportion of these firms were involved in trading (48.34%), then manufacturing which are (41.22%) followed by services (10.44%). Regarding the age of firm there were three options (1) Less than five years; (2) five to ten years; (3) more than eleven years, (70.48%) firms were having less than 5 years. (24.93%) firms were in between the age of (6-10) years. Lastly, only (04.59%) were set up from more than eleven years. On the other hand, there were three options for the respondents to indicate the time spent in the firm: (1) less than 3 years; (2) 3 to 7 years; (3) 7 to 15 years. Most of the respondents spent up to three years in the current firm (83.0%), followed by those who were part of the firm for 7 to 15 years (15.5%). Only 1.5% spent 3 to 7 years in the current firm. Besides that, 68.2% of the total key-respondents were owners of the firm. The remaining 31.8% were managers of the firm.

Table 4.4
Demographic Profile of Respondents

Demographic Information		Frequency	Percentage (%)
Number of employees			
Small	1-35	137	34.80
Medium	36-250	256	65.20
	Total	393	100.0
Type of firm			
	Manufacturing	162	41.22
	Services	41	10.44
	Trade	190	48.34
	Total	393	100.0
Age of firm			
	Less than 5 years	277	70.48
	6-10	98	24.93
	11- Above	18	04.59
	Total	393	100.0
Time in firm			
	Less than 3	326	83.0
	3-7	6	1.5
	7-15	61	15.5
	Total	393	100.0
Job position			
	Owner	268	68.2
	Manager	125	31.8
	Total	393	100.0

4.3.7 Common method bias test

As for the common method bias test, Herman's single factor test was applied in this study to determine whether there is any single factor that explains more than 50% of total variance, which is not favourable for the study. Based on the obtained results in Appendix B, no single factor was found to explain more than 50% of total variance. Hence, there was no issue of common method bias.

4.4 Evaluation of PLS-SEM Results

Measures for this analysis have been drawn from previous research. The reliability and validity of the measurements is calculated using SmartPLS3. The external model suggests the uni-dimensionality of the remaining EO analysis variables, which was

evaluated in the second order two stage approach. Subsequently, after verifying the efficacy and feasibility of the interventions, the relationship between latent variables evaluation of the structural model was analysed.

Following the results of the initial screening and sorting the respondent demographic profile, the results of inner and outer model were obtained and reported (Hair et al., 2013; Vinzi et al., 2010). SmartPLS3 was employed for the assessment of the measurement model (outer model) and structural model (inner model) to test the direct and indirect hypotheses in this study. It was used to determine the causality between constructs in the theoretical model (Sarstedt, Ringle, Smith, Reams, and Hair Jr (2014).

Prior to conducting PLS-SEM, there is a need to configure the model to obtain a clear understanding of the results. With that, formative indicators should be identified and clarified. This is necessary to remember that the design of the device is crucial since the testing of the reflective measurement model is somewhat distinct from the testing of the formative measurement model (Ringle, Sarstedt, Mitchell, & Gudergan, 2018). The nature of this study was reflective; hence the analysis involved the testing of two stage structures that comprised of two layers of components for EO. In other terms, the constructions in the structural model is viewed as first-order constructions. In terms of the sequence and affiliation among paradigms, there were three exogenous latent variables (EO, ECA, and OC) and one moderating variable (BE). There were two endogenous variables, which were the financial and non-financial performance of SMEs.

4.4.1 Assessment of measurement model

The first phase for PLS-SEM includes the calibration of the measurement model (outer model). The measurement model serves to cumulate the quantity of the components of the model, which shows how well the components load and how the indicators are theoretically related to the constructs. The measurement model reflects the reliability and validity of the designed model.

Measurement model presents the structural association between the construct and the corresponding indicators (Tabachnick, Fidell, & Ullman, 2007). Henseler et al. (2009), described that the measurement model should be assessed in terms of convergent validity and discriminant validity. The evaluation of the reflective measurement model involves an assessment of its reliability and validity with respect to the latent variables (Hair et al., 2016). For this study, the confirmatory factor analysis (CFA) was conducted to assess the measurement model by probing the relationships between the constructs and the corresponding indicators using SmartPLS3 (Ringle et al., 2018). In particular, the obtained CFA results demonstrated the internal consistency (composite reliability), convergent validity (average variance extracted [AVE]), and discriminant validity (heterotrait-monotrait ratio [HTMT]) of all scales. For this study, the reliability of the measurement model was assessed in terms of composite reliability (CR) whereas the construct validity of the measurement model was determined in terms of convergent validity and discriminant validity.

4.4.1.1 Factor loading

This study also examined the external factor loadings as essential criteria in analysing the contribution of indicators to the assigned construct. Outer loadings were analysed according to the threshold limit of 0.50 or more (Ringle et al., 2018). Although Hair et

al. (2016) argued that items with outer loadings of less than 0.50 should be carefully excluded, as these items may influence the values of AVE and CR. With that, five items (OC7, OC11, OC15, BE3, BE4) were removed from the study whereas the remaining 48 items were retained according to the recommendations by (Hair et al., 2016). The factor loadings of the outer-model items in table 4.5 and figure 4.1 clearly demonstrated the validity of the outer model or the first-order construct for further analysis. Because after that calculations of 2nd order were done and the next figures 4.2 of 2nd order are clearly shown in inner model calculations results.

4.4.1.2 Cronbach's alpha coefficient

Table 4.5 presents the results of Cronbach's alpha coefficients for all constructs. Overall, the values ranged between 0.535 and 0.924, which demonstrated the reliability of the measurement model (Hair et al., 2013; Henseler et al., 2009).

4.4.1.3 Composite reliability

Internal consistency essentially reflects the consistency of the items in the same test. In other terms, it decides how the proposed elements of the subsequent model yield identical scores (Ringle et al., 2018). The analysis then continued to calculate the durability of internal accuracy in terms of CR. According to Sarstedt et al. (2014), unlike Cronbach's alpha coefficient, CR does not assume an equal indicator loading for the construct. CR varies between 0 and 1 with its threshold value of 0.60 (Henseler et al., 2009). Accordingly, values of between 0.70 and 0.90 are deemed adequate. As shown in Table 4.5, the CR values ranged between 0.761 and 0.937, which demonstrated the adequacy of the constructs for the assessment of structural model (the testing of hypotheses).

4.4.1.4 Average variance extracted (AVE)

Convergent validity refers to the theoretical relationships between measures that are extended to the same constructs (Henseler et al., 2009). AVE with the threshold value of 0.50 (and above) was considered for this study to examine the element of convergence (convergent validity) in the measurement of constructs (Hair et al., 2013; Henseler et al., 2009). AVE of 0.50 demonstrates satisfactory convergent validity. EO served as the second-order construct; thus, it was calculated separately. The results of AVE for the dimensions of EO were also calculated and reported (Hair et al., 2013; Henseler et al., 2009). As shown in Table 4.5, the obtained values of AVE exceeded the threshold value of 0.50. The recorded values that were between 0.504 and 0.833 were within the acceptable range, which reaffirmed the adequacy of convergent validity for the model.

Table 4.5
Results of Cronbach's Alpha Coefficient, Composite Reliability, and AVE

Second-Order Construct	First-Order Constructs	Items	Loadings	Cronbach's Alpha Coefficient	Composite Reliability	Average Variance Extracted (AVE)
	SME's-NFP	SMENFP1	0.581	0.778	0.860	0.611
		SMENFP2	0.774			
		SMENFP3	0.880			
		SMENFP4	0.856			
	SME's-FP	SMEFP1	0.795	0.889	0.919	0.693
		SMEFP2	0.825			
		SMEFP3	0.855			
		SMEFP4	0.877			
		SMEFP5	0.808			
EO				0.763	0.761	0.553
	RT	EORT1	0.831	0.710	0.837	0.633
		EORT2	0.845			
		EORT3	0.703			
	PRO	EOPRO1	0.583	0.535	0.764	0.523
		EOPRO2	0.780			
		EOPRO3	0.787			
	INN	EOINN1	0.849	0.899	0.937	0.833
		EOINN2	0.952			

Second-Order Construct	First-Order Constructs	Items	Loadings	Cronbach's Alpha Coefficient	Composite Reliability	Average Variance Extracted (AVE)
		EOINN3	0.935			
	ECA	Ecom1	0.576	0.908	0.923	0.504
		Ecom10	0.713			
		Ecom11	0.831			
		Ecom12	0.667			
		Ecom2	0.534			
		Ecom3	0.555			
		Ecom4	0.793			
		Ecom5	0.784			
		Ecom6	0.741			
		Ecom7	0.792			
		Ecom8	0.724			
		Ecom9	0.729			
	OC	OC1	0.821	0.924	0.935	0.527
		OC10	0.743			
		OC12	0.803			
		OC13	0.584			
		OC14	0.730			
		OC16	0.752			
		OC2	0.673			
		OC3	0.782			
		OC4	0.576			
		OC5	0.755			
		OC6	0.763			
		OC8	0.631			
		OC9	0.771			
	BE	BE1	0.595	0.697	0.805	0.512
		BE2	0.667			
		BE5	0.848			
		BE6	0.727			

4.4.1.5 Discriminant Validity

Discriminant validity focuses on the degree to which the constructs differ from one another. In other words, theoretically related constructs should be related to one another (Churchill, 1979; Hair et al., 2013). The most conventional approaches to assess discriminant validity include Fornell-Larcker criterion and HTMT ratio (Ringle et al., 2018).

Hence, the discriminant validity in this study was determined based on the obtained results of Fornell-Larcker criterion (Table 4.6), cross-loadings (Table 4.7), and HTMT ratio (Table 4.8 and Table 4.9) using SmartPLS3. As shown in Table 4.6, all values were in order, where the respective value in the top row for each construct exceeded the other values of the same column. Referring to Table 4.8, no value exceeded 0.90. Hence, it was deemed fitting to conclude that the discriminant validity of the developed constructs was established (Hair et al., 2016; Henseler et al., 2009). Overall, there was no issue for all constructs in terms of discriminant validity.

Table 4.6
Results of Fornell-Larcker Criterion

Items	BE	ECA	EO	FP	NFP	OC
BE	0.715					
ECA	0.523	0.770				
EO	0.511	0.570	0.743			
FP	0.547	0.695	0.533	0.832		
NFP	0.625	0.762	0.577	0.652	0.782	
OC	0.636	0.608	0.712	0.622	0.652	0.726

EO denotes entrepreneurial orientation; ECA denotes e-commerce adoption; OC denotes organisational culture; BE denotes dynamic business environment; FP denotes financial performance of SMEs; NFP denotes non-financial performance of SMEs

Table 4.7
Results of Cross-Loadings

Items	BE	ECA	EO	FP	NFP	OC
BE1	0.595	0.263	0.206	0.226	0.259	0.319
BE2	0.667	0.358	0.333	0.295	0.345	0.422
BE5	0.848	0.529	0.473	0.474	0.681	0.572
BE6	0.727	0.284	0.378	0.493	0.366	0.452
Ecom1	0.272	0.576	0.4	0.32	0.356	0.337
Ecom10	0.288	0.713	0.359	0.412	0.61	0.353
Ecom11	0.381	0.831	0.415	0.547	0.637	0.476
Ecom12	0.46	0.667	0.399	0.493	0.562	0.432
Ecom2	0.31	0.534	0.422	0.28	0.422	0.392
Ecom3	0.333	0.555	0.436	0.345	0.396	0.361
Ecom4	0.395	0.793	0.424	0.513	0.736	0.47
Ecom5	0.368	0.784	0.438	0.543	0.594	0.478
Ecom6	0.4	0.741	0.404	0.589	0.488	0.478
Ecom7	0.383	0.792	0.391	0.62	0.553	0.47
Ecom8	0.417	0.724	0.414	0.548	0.508	0.433

Items	BE	ECA	EO	FP	NFP	OC
Ecom9	0.433	0.729	0.426	0.58	0.518	0.479
EOINN	0.115	-0.037	0.296	0.099	0.083	0.119
EOPRO	0.429	0.479	0.883	0.462	0.5	0.624
EORT	0.481	0.566	0.889	0.492	0.536	0.653
SMEFP1	0.381	0.567	0.446	0.794	0.55	0.459
SMEFP2	0.424	0.566	0.436	0.825	0.506	0.488
SMEFP3	0.437	0.609	0.435	0.855	0.541	0.503
SMEFP4	0.507	0.605	0.464	0.877	0.575	0.569
SMEFP5	0.519	0.542	0.439	0.808	0.541	0.565
SMENFP1	0.385	0.48	0.472	0.428	0.581	0.507
SMENFP2	0.357	0.589	0.335	0.536	0.774	0.4
SMENFP3	0.546	0.649	0.479	0.507	0.88	0.558
SMENFP4	0.623	0.645	0.507	0.562	0.856	0.561
OC1	0.562	0.486	0.54	0.478	0.545	0.821
OC10	0.381	0.416	0.574	0.42	0.431	0.743
OC12	0.583	0.494	0.496	0.445	0.527	0.803
OC13	0.343	0.411	0.704	0.418	0.474	0.584
OC14	0.359	0.339	0.39	0.345	0.411	0.73
OC16	0.412	0.409	0.537	0.416	0.463	0.752
OC2	0.52	0.436	0.375	0.509	0.43	0.673
OC3	0.591	0.467	0.495	0.451	0.546	0.782
OC4	0.412	0.422	0.324	0.439	0.333	0.576
OC5	0.438	0.435	0.419	0.45	0.44	0.755
OC6	0.39	0.4	0.439	0.455	0.404	0.763
OC8	0.449	0.449	0.62	0.547	0.466	0.631
OC9	0.475	0.515	0.708	0.45	0.598	0.771

Meanwhile, the results of HTMT ratio were separated into two tables since there were three dimensions of EO (i.e. risk-taking, pro-activeness, and innovativeness) in this study. The results in both Table 4.8 and Table 4.9 revealed that no values exceeded 0.90. These results reaffirmed the discriminant validity of the developed constructs in this study (Hair et al., 2016; Henseler et al., 2009).

Table 4.8
Results of HTMT Ratio (First-Order Construct)

Items	BE	ECA	FP	INN	NFP	OC	PRO	RT
BE								
ECA	0.625							
FP	0.651	0.761						
INN	0.162	0.099	0.111					
NFP	0.769	0.900	0.789	0.099				
OC	0.754	0.662	0.683	0.162	0.764			
PRO	0.661	0.702	0.673	0.323	0.769	0.869		
RT	0.637	0.744	0.62	0.207	0.73	0.794	0.897	

EO denotes entrepreneurial orientation; RT denotes risk taking; INN denotes innovativeness; PRO proactiveness; ECA denotes e-commerce adoption; OC denotes organisational culture; BE denotes dynamic business environment; FP denotes financial performance of SMEs; NFP denotes non-financial performance of SMEs

Table 4.9
Results of HTMT Ratio (Second-Order Construct)

Items	BE	ECA	EO	FP	NFP	OC
BE						
ECA	0.625					
EO	0.702	0.760				
FP	0.651	0.761	0.664			
NFP	0.769	0.900	0.756	0.789		
OC	0.754	0.662	0.873	0.683	0.764	

EO denotes entrepreneurial orientation; ECA denotes e-commerce adoption; OC denotes organisational culture; BE denotes dynamic business environment; FP denotes financial performance of SMEs; NFP denotes non-financial performance of SMEs

4.4.2 Final measurement model of first-order construct

The assessment of the measurement model clearly revealed satisfactory evidence of reliability and validity. Prior to the subsequent assessment of the structural model, the measurement model was subjected to modification since the original framework was based on the literature and five items were removed, resulting in a deletion ratio of 9.6%. However, at this point, none of the constructs were eliminated and there were sufficient indicators per construct (Hair, Sarstedt, Pieper, & Ringle, 2012).

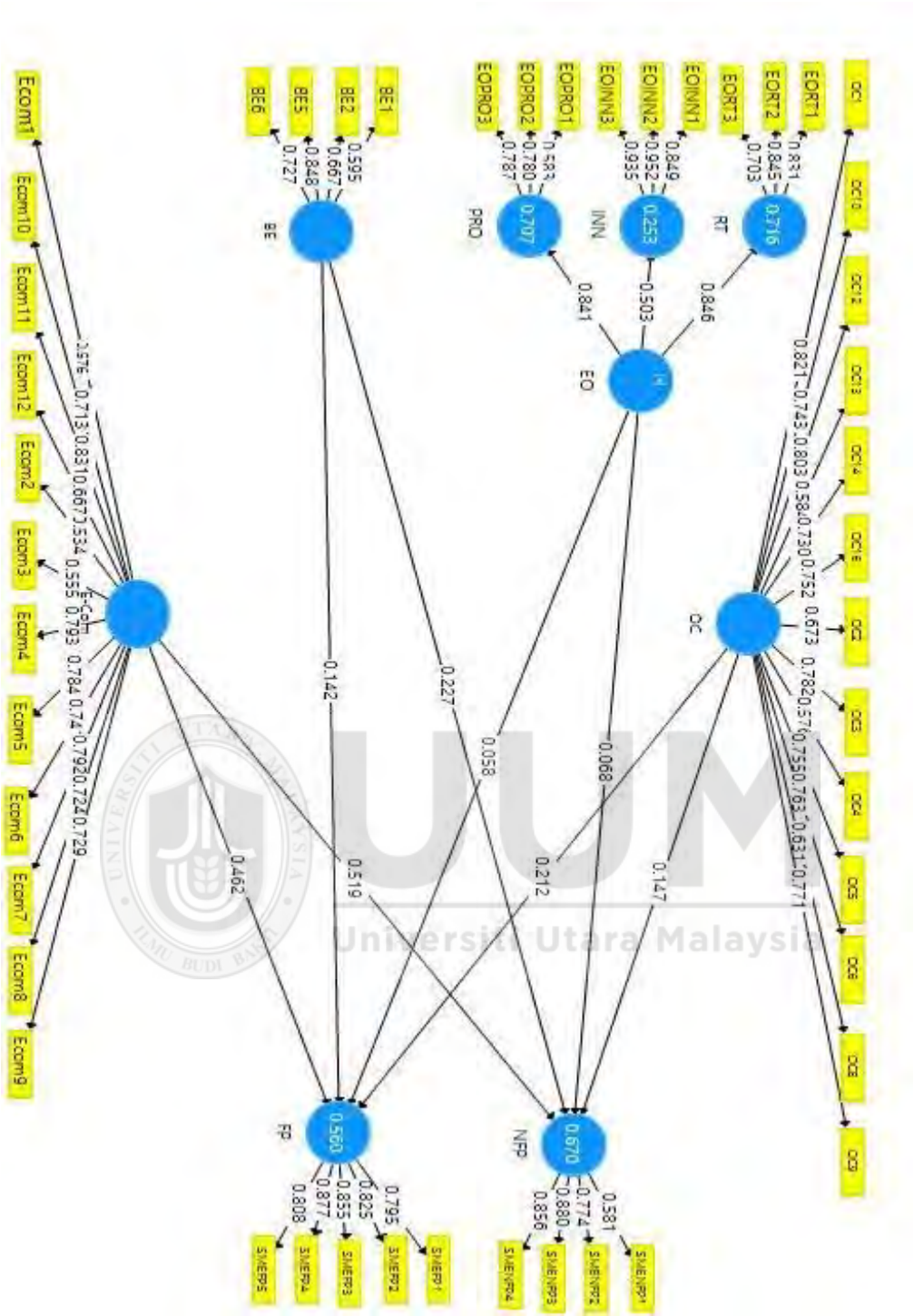

Figure 4.1 Measurement Model (Reflective-Reflective)

4.4.3 Assessment of structural model

Following the assessment of measurement model, the structural model was assessed. Hair et al. (2013), suggests path coefficients, coefficient of determination (R^2), effect

size (f^2), and predictive relevance (Q^2) to be the key measures for the assessment of structural model.

4.4.3.1 Testing of direct hypotheses

The structural model in this study served to provide a detailed overview of the analysis as well as all eight direct hypotheses and the relevance of constructs. The assessment of structural model first began with the testing of direct hypotheses. SmartPLS3 was used to measure the path coefficients. The bootstrapping technique was employed to determine the significance of the proposed direct hypotheses. To getting more reliable result, 5000 of the original sample was a command to run Smart PLS-SEM3 bootstrapping (Hair et al., 2012; Henseler et al., 2009; Ringle et al., 2018). The first model (Figure 4.2) focused on the path coefficients of all direct hypotheses whereas the second model (Figure 4.3) demonstrated the significance of all direct hypotheses (H_1-H_6).

The results of the PLS-SEM algorithm procedure in Figure 4.2 revealed the path coefficients of the relationships between independent and dependent variables. All path coefficients were found positive. Based on the bootstrapping results in Figure 4.3, both H_1 ($p = .423$) and H_2 ($p = .216$) were found statistically insignificant. On the other hand, the remaining hypothesised relationships were statistically significant ($p < .05$). Meanwhile, Table 4.10 presents the results of beta values, t-statistics (t-values), and p-values. Focusing on H_1 and H_2, the results of t-values and p-values revealed that EO did not contribute any impact on the financial and non-financial performance of SMEs ($t < 1.96$; $p > .05$). The remaining results of t-values and p-values supported H_3 ($t = 8.103$; $p = .00$), H_4 ($t = 10.404$; $p = .00$), H_5 ($t = 3.694$; $p = .00$), H_6 ($t = 3.130$; $p = .002$).

Table 4.10
Results of Path Analysis

Path		Beta	SD	t-value	p-value	Decision
H_1	**EO → FP**	0.037	0.046	0.801	.423	Insignificant
H_2	**EO → NFP**	0.057	0.046	1.238	.216	Insignificant
H_3	**ECA → FP**	0.462	0.058	8.013	.000*	**Significant**
H_4	**ECA → NFP**	0.517	0.050	10.404	.000*	**Significant**
H_5	**OC → FP**	0.223	0.061	3.649	.000*	**Significant**
H_6	**OC → NFP**	0.152	0.048	3.130	.002*	**Significant**

Notes: * denotes statistical significance at 0.05 level; t = 1.96; EO denotes entrepreneurial orientation; ECA denotes e-commerce adoption; OC denotes organisational culture; FP denotes financial performance of SMEs; NFP denotes non-financial performance of SMEs.

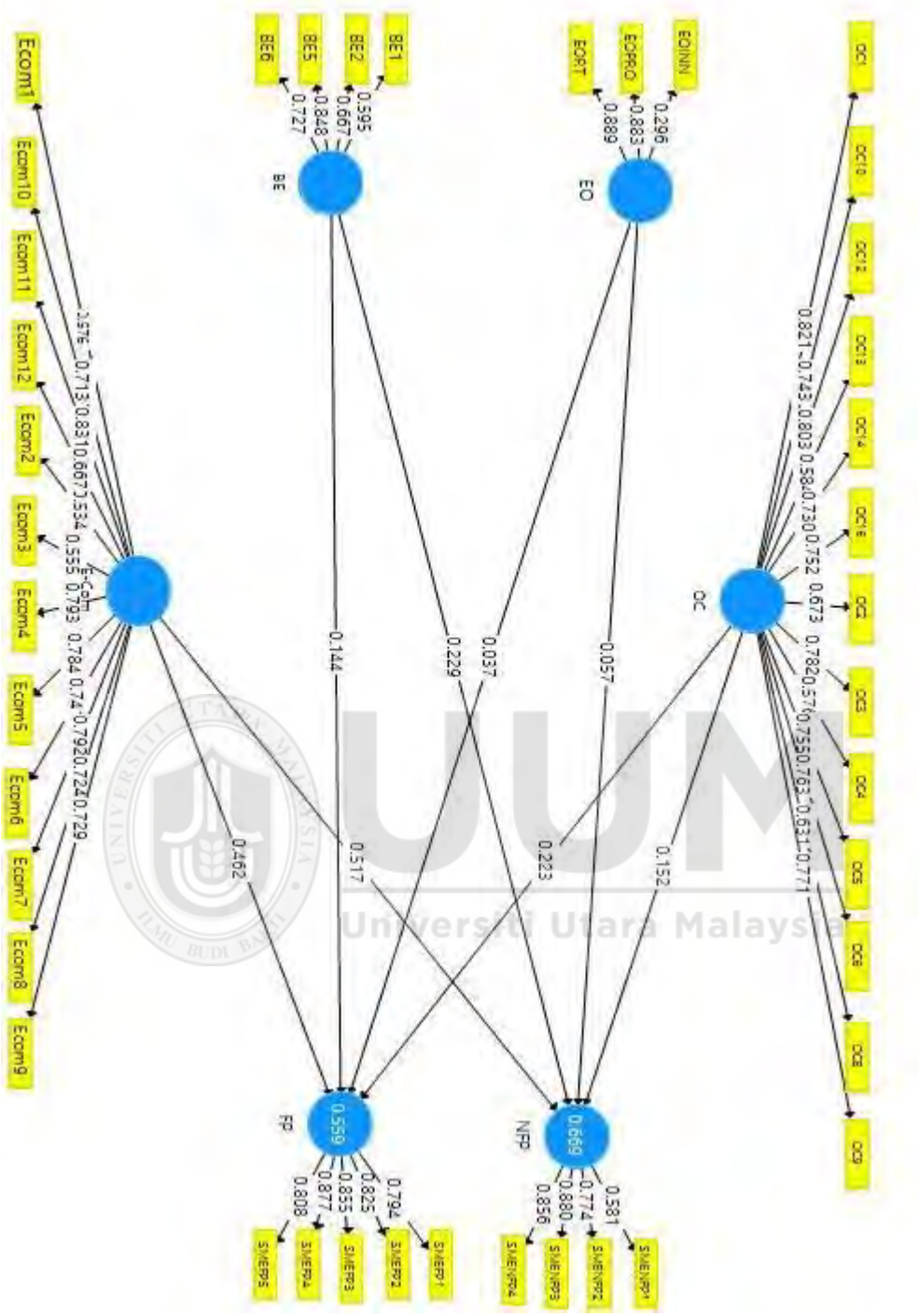

Figure 4.2 PLS Algorithm of Direct Relationships

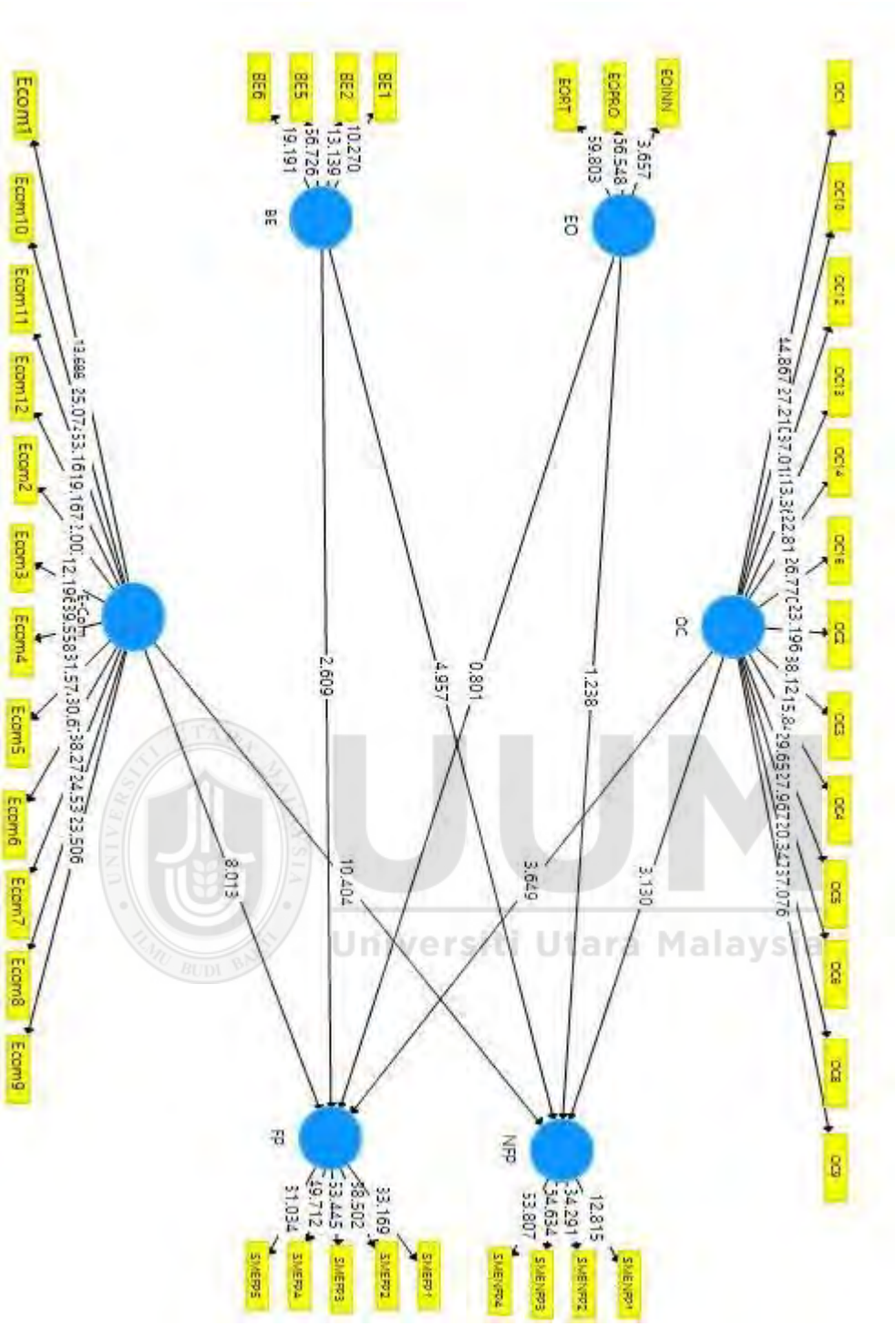

Figure 4.3 PLS Bootstrapping of Direct Relationships (Two-Stage Approach)

4.4.3.2 Testing of indirect hypotheses

The first step in assessing the moderating impact in PLS-SEM involves the testing of direct hypotheses, followed by the testing of indirect hypotheses, including the moderating interaction between constructs (Vinzi et al. (2010). The results on the

moderating impact of BE on the relationships of EO, ECA, and OC with the performance of SMEs in terms of financial and non-financial performance were reported in this section. The moderation model in Figure 4.4 and Figure 4.5 revealed whether the prediction of the financial and non-financial performance of SMEs in relation to EO, ECA, and OC can be improved through BE as a moderating variable. Figure 4.4 presents the path assessment when the moderating variable was included as an independent variable. The obtained results revealed statistically significant and positive path coefficient for BE.

Table 4.11 presents the results of beta values, t-statistics (t-values), and p-values. The study successfully obtained adequate evidence on the significant moderating role of BE in several relationships (H_7, H_8, H_9, H_{10}, H_{11} and H_{12}). H_7 was only accepted on the significance level of 10% (G. Wang, 2011), while the remaining hypotheses (H_8, H_9, and H_{11}) were accepted on the error term of 5%. Based on these results, BE was found to significantly moderate the relationships of EO, ECA, and OC with the SME financial performance and the relationship between EO and the SME non-financial performance. Hence, H_{10} and H_{12} were rejected due to the insignificant moderating results.

Table 4.11
Result of Moderating Analysis

Path		Beta	SD	t-value	p-value	Decision
H_7	**EO-BE → FP**	-0.084	0.043	1.944	.052†	**Significant**
H_8	**EO-BE → NFP**	-0.111	0.050	2.232	.026*	**Significant**
H_9	**ECA-BE → FP**	-0.131	0.052	2.536	.011*	**Significant**
H_{10}	**ECA-BE → NFP**	-0.017	0.052	0.322	.747	Insignificant
H_{11}	**OC-BE → FP**	0.113	0.056	2.000	.046*	**Significant**
H_{12}	**OC-BE → NFP**	0.067	0.052	1.293	.196	Insignificant

Notes: * denotes statistical significance at 0.05 level; † denotes statistical significance at 0.10 level; t > 1.96; EO denotes entrepreneurial orientation; ECA denotes e-commerce adoption; OC denotes organisational culture; BE denotes dynamic business environment; FP denotes financial performance of SMEs; NFP denotes non-financial performance of SMEs.

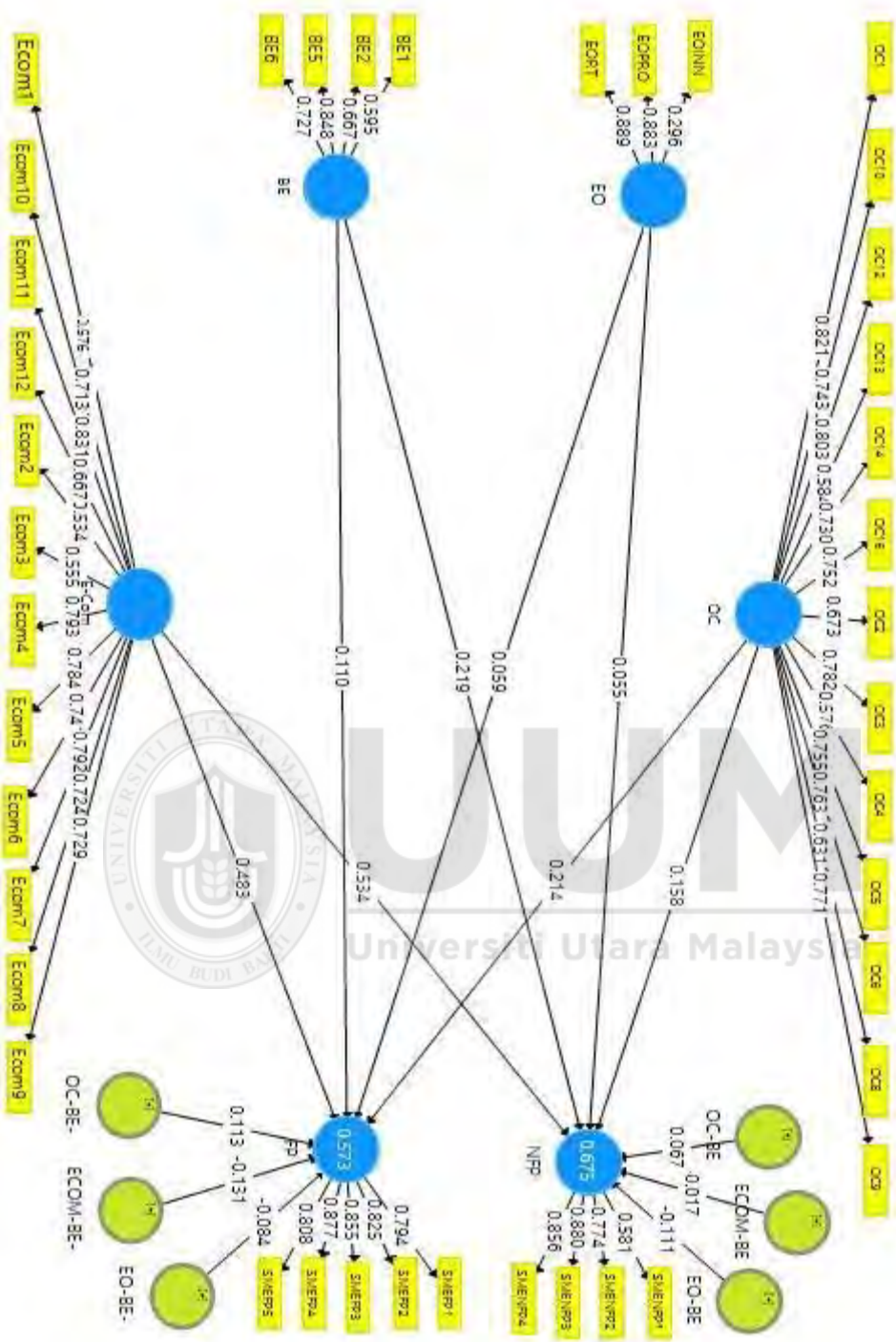

Figure 4.4 PLS-SEM Algorithm Moderator

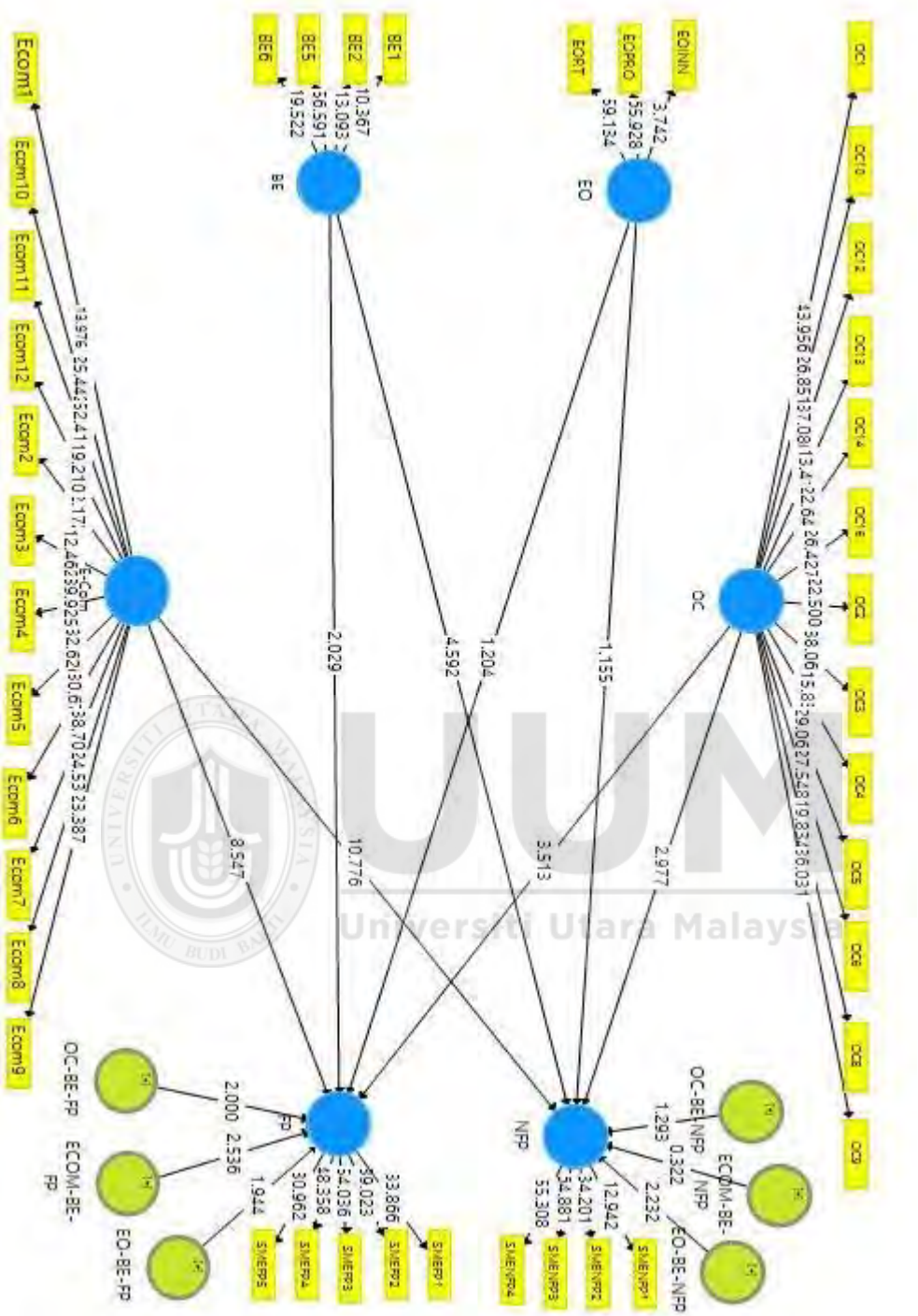

Figure 4.5 PLS-SEM Bootstrapping Moderator

4.4.4 Coefficient of determination (R^2)

A key criterion for the assessment of structural model is measuring the explained variance in dependent criterion variable, which is represented by R^2 (Hair et al., 2013; Henseler et al., 2009). R^2 refers to the percentage of variation in the criterion variable

that can be explicated by predictor variables (Hair Joseph, 2019). Although the suitable level of R^2 depends on the circumstances of research (K. Chen & Yang, 2014; Chin, 1998; Hair et al., 2013), it is suggested that, in PLS-SEM, R^2 of 0.67 suggests substantial effect, R^2 of 0.33 suggests moderate effect, and R^2 of 0.19 suggests weak effect. Table 4.12 presents the results of R^2 for both dependent variables. In particular, the financial performance of SMEs recorded values of 0.554 and 0.559, and 0.666 and 0.669 for non-financial performance of SMEs. These values revealed that both dependent variables in this study were substantially explained by independent variables.

As presented in Table 4.12, the research model of this study explained 55.9% of the total variance in the financial performance of SMEs and 66.9% of the total variance in the non-financial performance of SMEs. In other words, EO, ECA, and OC collectively explained 55.9% of the total variance in the financial performance of SMEs and 66.9% of the total variance in the non-financial performance of SMEs according to the proposed criteria by Chin (1998).

Table 4.12
Variance Explained in the Criterion Variable (R^2)

Dependent Variables	R-Square	R-Square Adjusted
FP	0.559	0.554
NFP	0.669	0.666

Notes: FP denotes financial performance of SMEs; NFP denotes non-financial performance of SMEs.

4.4.5 Assessment of effect size (f^2)

The effect of each predictor variable, when included in the model on the change of f^2, is termed as effect size (J. D. Cohen, Usher, & McClelland, 1998). Effect size is

expressed based on the following formula (Selya, Rose, Dierker, Hedeker, & Mermelstein, 2012):

$$f^2 = \frac{R^2_{\text{included}} - R^2_{\text{excluded}}}{1 - R^2_{\text{included}}},$$

According to Cohen (1988), f² that is lower than 0.02 suggests "small effect", f² that is between 0.02 and 0.15 suggests "medium effect", and f² that is between 0.15 and 0.35 or more suggests "large effect".

In this study, the effect size for the independent variables were found statistically significant. The results on the impact of independent variables on the dependent variables in Table 4.13 demonstrated the effect size of the independent variables on both dependent variables. In particular, the effect size for ECA, EO, and OC were, 0.275, 0.001, and 0.042 in the case of financial performance of SMEs whereas the effect size for ECA, EO, and OC were, 0.459, 0.005, and 0.026 in the case of non-financial performance.

Table 4.13
Assessment of Effect Size (f^2)

Independent Variables	FP	Effect Size	NFP	Effect Size
ECA	0.275	Large effect	0.459	Large effect
EO	0.001	Small effect	0.005	Small effect
OC	0.042	Small effect	0.026	Small effect

EO denotes entrepreneurial orientation; ECA denotes e-commerce adoption; OC denotes organisational culture; BE denotes dynamic business environment; FP denotes financial performance of SMEs; NFP denotes non-financial performance of SMEs

4.4.6 Simple slope analysis for interaction terms

In order to determine the strength of the moderating impact of BE on the relationships of EO, ECA, and OC with the financial and non-financial performance of SMEs (Fisch,

Cohen, Jenkins, & Brown, 1988), effect sizes were calculated. Thus, the strength of the moderating effects could be expressed using the following formula (Cohen et al., 1998; Fisch et al., 1988; Henseler & Fassott, 2010): effect size for moderating effects of dynamic business environment on the relationships of (EO,ECOM,OC to FP) were (0.008, 0.023, 0.012), and (0.018, 0.001, 0.006) for non-financial performance respectively.

Table 4.14
Effect Size of Moderator

Relationships	FP	Effect Size	Relationships	NFP	Effect Size
EO-BE-FP	0.008	Small	EO-BE-NFP	0.018	Small
ECA-BE-FP	0.023	Medium	ECA-BE-NFP	0.001	Small
OC-BE-FP	0.012	Small	OC-BE-NFP	0.006	Small

Notes: FP denotes financial performance of SMEs; NFP denotes non-financial performance of SMEs.

Referring to the simple slope analysis, as shown in the following figures, the horizontal axis (x-axis) represents the predictors and the vertical axis (y-axis) represents the endogenous variables. In the simple slope plots, the three lines illustrate the relationship between the exogenous and endogenous constructs for both high and low levels of the moderating variable. Referring to Figure 4.6, BE was found to significantly moderate the relationship between EO and the financial performance of SMEs. The results revealed that the presence of unfavourable BE can weaken the relationship between EO and the financial performance of SMEs. On the other hand, the results in Figure 4.7 revealed that BE significantly and negatively moderated the relationship between EO and the non-financial performance of SMEs. In other words, the presence of BE can dampen the relationship between EO and the non-financial performance of SMEs. Similar to the results in Figure 4.8, the results revealed that BE significantly moderated the relationship between ECA and the financial performance of SMEs in Pakistan. Therefore, the presence of unfavourable BE can weaken the positive relationship

between ECA and the financial performance of SMEs. Meanwhile, referring to Figure 4.9, the pattern of the data indicated that the positive relationship between OC and the financial performance of SMEs can be strengthened through a favourable BE.

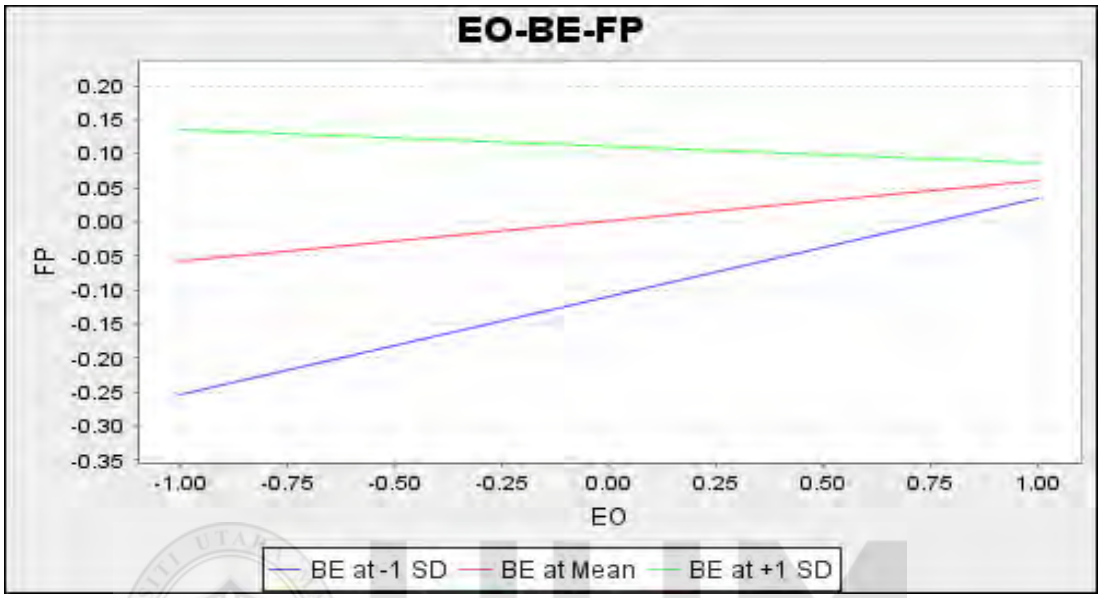

Figure 4.6 Interaction Effect of Entrepreneurial Orientation and Dynamic Business Environment on Financial Performance of SMEs

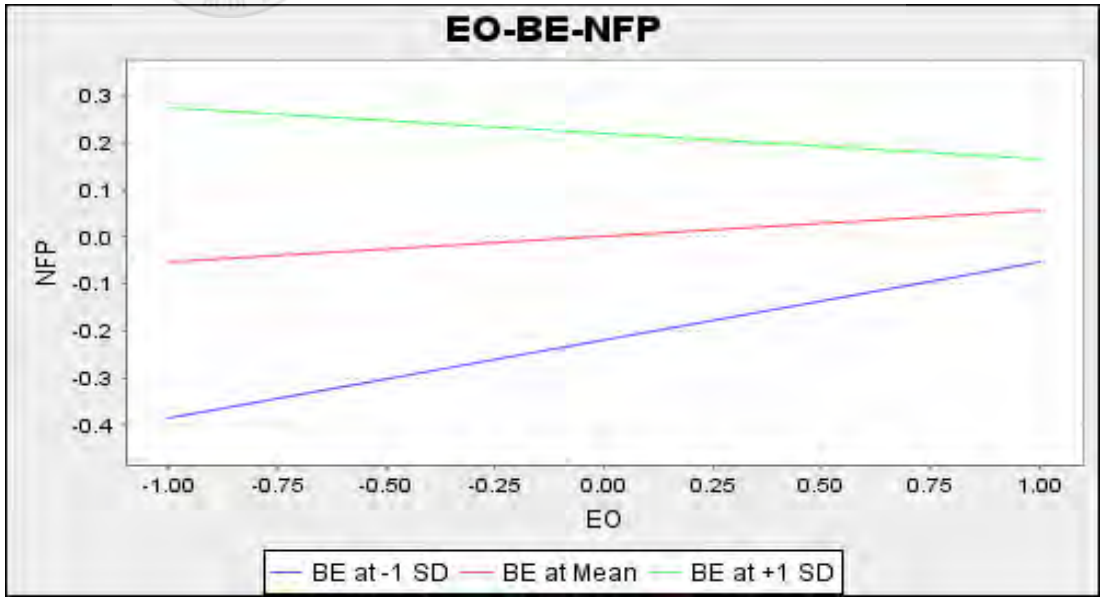

Figure 4.7 Interaction Effect of Entrepreneurial Orientation and Dynamic Business Environment on Non-Financial Performance of SMEs

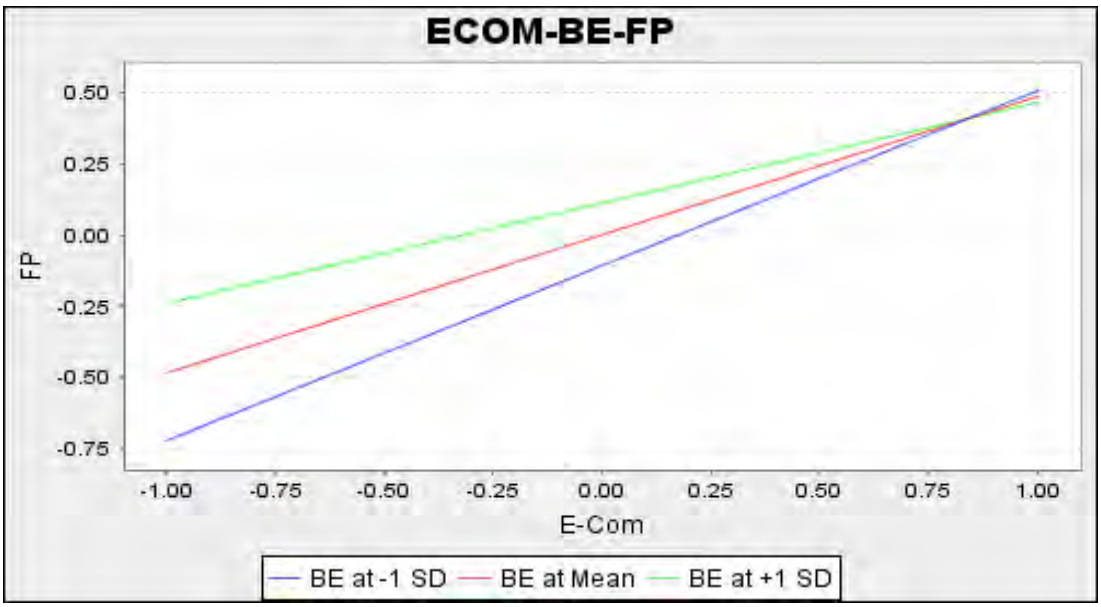

Figure 4.8 Interaction Effect of E-Commerce Adoption and Dynamic Business Environment on Financial Performance of SMEs

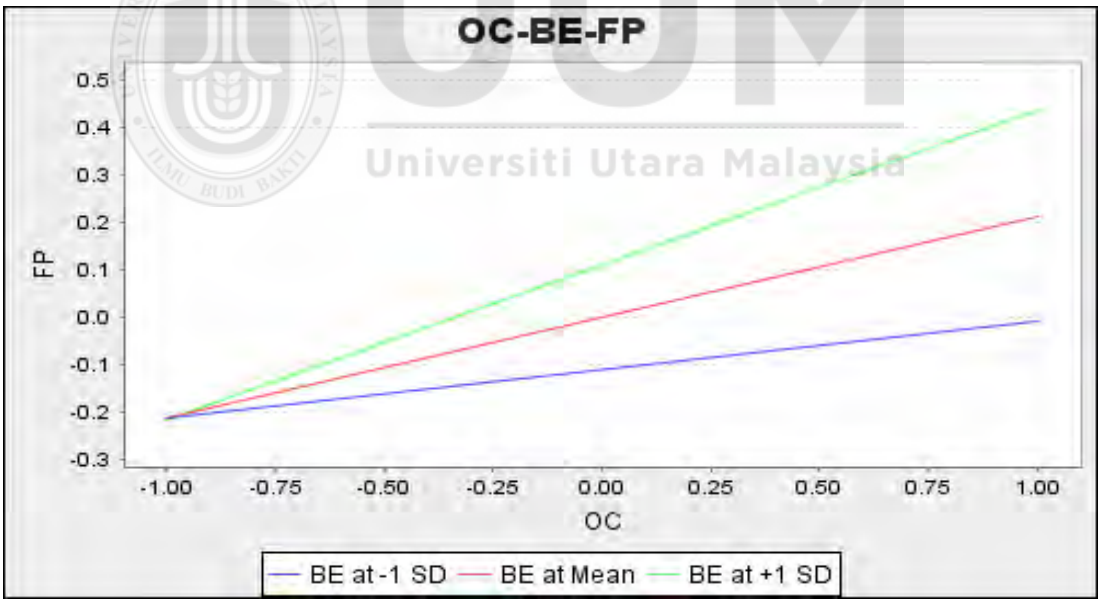

Figure 4.9 Interaction Effect of Organizational Culture and Dynamic Business Environment on Financial Performance of SMEs

4.4.7 Assessment of predictive relevance (Q^2)

This study applied the blindfolding procedure to test predictive relevance as a supplementary assessment of goodness of fit in PLS SEM (Geisser, 1974; Stone, 1974)

(Duarte & Raposo, 2010). The blindfolding procedure is applied to criterion variables having reflective measurement model operationalisation which specifies the variation in observable indicators to be caused by a latent concept (Hair et al., 2016). Since the nature of the present study was reflective, the criterion variables were subject to blindfolding procedure.

Furthermore, to assess the predictive relevance of the model, a cross-validated redundancy measure (Q^2) was also applied which measures how well a model can predict the data of omitted cases (Hair et al., 2016; Ringle et al., 2018). According to Henseler et al. (2009), a model demonstrates predictive relevance when Q^2 value exceeds zero. Additionally, higher Q^2 value suggests higher predictive relevance. Table 4.15 presents the results of the cross-validated redundancy test for both dependent variables.

Table 4.15
Assessment of Predictive Relevance (Q^2)

Dependent Variables	SSO	SSE	Q^2 (1-SSE/SSO)
FP	1,965.000	1,241.816	0.368
NFP	1,572.000	971.796	0.382

4.5 Chapter Summary

This chapter presented the justification towards the use of PLS path modelling for the testing of the theoretical model in this study. The key results of the assessment of the significance of path coefficients were reported. In general, the moderating impact of BE on the relationships of EO, ECA, and OC with SME performance in terms of financial and non-financial performance. Most importantly, concerning the moderating impact of BE on the relationships of three predictor variables with two dependent variables, the PLS path coefficients revealed that four of six formulated hypotheses were supported. BE was found to moderate (1) the relationship between EO and financial SME performance, (2) the relationship between EO and non-financial SME performance, (3) the relationship between ECA and financial SME performance, and (4) the relationship between OC and financial SME performance. The subsequent chapter discussed and concluded the major results of the testing of all hypotheses as well as the implications of study and recommendations for future research.

CHAPTER FIVE
DISCUSSION AND CONCLUSION

5.1 Introduction

Chapter Five discusses the obtained statistical results in light of the objectives. The chapter also discusses results of formulated hypotheses. Additionally, this chapter elaborates on the theoretical and practical implications in light of the key findings. The chapter concludes with the limitations of the study and proposes recommendations for future research.

5.2 Recapitulation of Study

This section recapitulates the obtained results according to the objectives of this study. The primary objective of this study was to assess the moderating role of BE in the relationships of entrepreneurial orientation (EO), e-commerce adoption (ECA), and organisational culture (OC) with SME performance in Pakistan. More specifically, there were three independent variables, namely EO, ECA, and OC, which were hypothesised to exhibit significant on SME performance (financial and non-financial). Besides that, BE was hypothesised to moderate the above relationships.

Objectives of this study were formulated and presented parallel to research questions originating from the problem statement. The obtained results on these relationships were expected to provide avenues to enhance the performance of SMEs. RBV, TAM and contingency theory were used to support the theoretical framework of the study. According to the RBV theory, the valuable tangible and intangible resources of SMEs influence their performance. Consequently, in this study, BE served as part of the intangible resources for SMEs to make secondary or contingency plan in avoiding

unexpected losses. Meanwhile, the e-commerce technologies in this study served as part of the tangible resources for SMEs to improve their technological level. A total of 12 hypotheses were formulated and tested statistically in PLS-SEM using SmartPLS3. The empirical results were found to support eight hypotheses (four direct hypotheses and four indirect hypotheses).

5.3 Discussion and Explanation of Direct Relationships

This section discusses the obtained results of the study on the direct relationships between variables according to the objectives of the study. In the proposed theoretical framework, EO, ECA, OC, and BE served as the independent variables whereas SME performance was the criterion variable for this sudy. Eight direct hypotheses (H_1-H_8) were formulated. The results of the testing of these hypotheses were discussed in the following subsections.

5.3.1 First objective of the study

Firstly, this study aimed to assess the impact of entrepreneurial orientation on the performance of SMEs. With that, the following two direct hypotheses were proposed for testing:

H_1. Entrepreneurial orientation significantly affects the financial performance of SMEs.

H_2. Entrepreneurial orientation significantly affects the non-financial performance of SMEs.

5.3.1.1 Relationship between entrepreneurial orientation and financial performance of SMEs

EO in this study comprised of three interrelated components, specifically risk-taking, pro-activeness, and innovativeness. Studies have postulated that SMEs with these three components tend to make bold business decisions. However, the present study found evidence that the relationship between EO and financial performance of SMEs was statistically insignificant. Studies done by Kantur (2016); T. Lee and Chu (2017); Su, Xie, and Li (2011), also reported similar "insignificant" results on the relationship between EO and performance. In this case, the present study did not obtain adequate evidence to support H_1; thus, H_1 was rejected.

5.3.1.2 Relationship between entrepreneurial orientation and non-financial performance of SMEs

Similarly, the present study found evidence that the relationship between EO and financial SME performance was statistically insignificant, which was also in line with several prior studies that also found that EO did not significantly affect the non-financial performance of organisations (Su et al., 2011). However, these results were found to contradict the results of previous studies that demonstrated significant relationship between EO and non-financial performance (Lee & Chu, 2017). In this case, the present study did not obtain adequate evidence to support H_2; thus, H_2 was rejected.

Both hypotheses on the direct relationship between EO and SME performance were rejected. These results may be attributed to the drastic environmental changes in Pakistan in terms of political stability and energy crises. The owners or managers of SMEs in Pakistan's textile sector may feel insecure in taking risks and being pro-active

and innovative. The culture to innovate in Pakistan is reportedly very low due to the uncertainties in the country, such as the changing political environment, high tax rates, and energy crises hence, risk-taking, pro-activeness, and innovativeness do not affect their financial and non-financial performance (The Global Innovation Index, 2019).

Moreover, most of SMEs in the study were in the age of less than five years. In previous researches of EO it is also claimed that experience of firms also affects the strategic level of firms (Kantur, 2016; Rauch, Wiklund, Lumpkin, Frese, & practice, 2009). Regarding insignificant relationships of EO with financial performance and non-financial performance also caused by low age of textile SMEs in Pakistan.

5.3.2 Second objective of the study

Secondly, this study aimed to assess the impact of e-commerce adoption on the performance of SMEs. With that, the following two direct hypotheses were proposed for testing:

H_3. E-commerce adoption significantly affects the financial performance of SMEs.

H_4. E-commerce adoption significantly affects the non-financial performance of SMEs.

5.3.2.1 Relationship between e-commerce adoption and financial performance of SMEs

The obtained results of t-values and p-values in this study demonstrated a significant and positive relationship between ECA and financial performance of SMEs, which were in line with numerous prior studies (Goldman, van Herk, Verhagen, & Weltevreden, 2018; Grandón & Ramírez-Correa, 2018; Saridakis, Lai, Mohammed, &

Hansen, 2018). In this case, the present study obtained adequate evidence to support H_3.

5.3.2.2 Relationship between e-commerce adoption and non-financial performance of SMEs

Likewise, the present study also found evidence supporting a significant and positive relationship between ECA and the non-financial SME performance, which was found to reflect the assumptions of the adopted theory regarding e-commerce adoption. (Azeem, Ozari, Marsap, Arhab, & Jilani, 2015) also reported similar findings on the relationship between ECA and non-financial performance. In this case, the present study obtained adequate evidence to support H_4.

Both hypotheses on the direct relationship between ECA and the performance of SMEs were supported, which were in line with the theoretical assumptions of TAM that identified perceived ease of use and perceived usefulness as the most influential factors of ECA, as perceived by SME owners / managers. SMEs in developing countries have demonstrated the initiative to adopt e-commerce technologies or use information technologies adequately as they become aware and understand how e-commerce technologies can enrich their production. However, the issue of technology illiteracy has remained prevalent considering the lack of skilled employees in SMEs for most of the developing countries. This has complicated their effort to move forward with the adoption of e-commerce in their business. Nevertheless, the obtained results of the present study revealed an optimistic attitude among the owners or managers of SMEs in adopting e-commerce as strategies to improve the financial and non-financial performance of their organisations.

5.3.3 Third objective of the study

Besides that, this study also aimed to assess the impact of organisational culture on the performance of SMEs. With that, the following two direct hypotheses were proposed for testing:

H_5. Organisational culture significantly affects the financial performance of SMEs.

H_6. Organisational culture significantly affects the non-financial performance of SMEs.

5.3.3.1 Relationship between organisational culture and financial performance of SMEs

The obtained results of t-values and p-values in this study demonstrated a significant and positive relationship between OC and the financial performance of SMEs, which was in line with the theoretical assumptions and findings of past studies (Naranjo-Valencia, Jiménez-Jiménez, & Sanz-Valle, 2016). In this case, the present study obtained adequate evidence to support H_5.

5.3.3.2 Relationship between organisational culture and non-financial performance of SMEs

Similarly, the obtained results of the present study demonstrated a significant and positive relationship between OC and the non-financial performance of SMEs, which was also aligned with the results of past studies (García-Fernández, Martelo-Landroguez, Vélez-Colon, & Cepeda-Carrión, 2018; Kyriakidou & Gore, 2005; Martinez, Beaulieu, Gibbons, Pronovost, & Wang, 2015; Yusof & Nikbin, 2010). Essentially, OC reflects the philosophy of an organisation that focuses on the satisfaction of employees through employee-oriented activities and inter-functional

coordination. Nevertheless, the present study obtained adequate evidence that demonstrated that OC significantly affects the financial and non-financial performance of SMEs in Pakistan. In this case, H_6 was supported.

Both hypotheses on the direct relationship between OC and SME performance were supported. OC was deemed as a common concept governing organization based on a system of beliefs and values. These common values exhibit a strong influence over an organisation in terms of how the employees dress, work, and perform their job. The behavioural guidelines are extended through a unique culture at an organisation. The obtained results in this study highlighted pertinent insights on the significance of OC in influencing the SME performance (financial and non-financial). Furthermore, these results substantiated the empirical linkage between OC and the performance of SMEs in terms of financial and non-financial performance. These findings further supported the notion of the RBV theory, where OC serves as a strategic resource for SMEs. Thus, it is essential that SMEs in Pakistan focus on establishing a better OC as a core business strategy to motivate employees to improve their performance and subsequently, create quality products and services for higher performance.

5.4 Discussion and Explanation of Indirect Relationships

This section discusses the obtained results of the study on the indirect relationships between variables. Unlike the earlier section, BE was tested as a moderating variable in the relationships of EO, ECA, and OC with the performance of SMEs in terms of financial and non-financial performance. In this case, there were three independent variables (i.e. EO, ECA, and OC), two dependent variables (i.e. financial and non-financial performance), and one moderating variable (i.e. BE). A total of six indirect

hypotheses (H_7-H_{12}) were tested. The results of the testing of these hypotheses were discussed in the following subsections.

5.4.1 Fourth objective of the study

The final objective of the present study was to assess the moderating role of BE in the relationships of EO, ECA, and OC with the performance of SMEs in terms of financial and non-financial performance. Overall, only four hypotheses were supported. These results may be attributed to the operation of SMEs in Pakistan. The majority of SMEs in Pakistan operate in a partially supportive BE they have to cope with various challenges due to low infrastructure support, energy crises, inconsistent government tax policies, and insecurity problems (Mahwish & Abasyn, 2017). The tested hypotheses were as follows:

"H_7. The dynamic business environment *significantly affects the relationship between entrepreneurial orientation and financial performance of SMEs.*

H_8. The dynamic business environment *significantly affects the relationship between entrepreneurial orientation and non-financial performance of SMEs.*

H_9. The dynamic business environment *significantly affects the relationship between e-commerce adoption and financial performance of SMEs.*

H_{10}. The dynamic business environment *significantly affects the relationship between e-commerce adoption and non-financial performance of SMEs.*

H_{11}. The dynamic business environment *significantly affects the relationship between organisational culture and financial performance of SMEs.*

H_{12}. The dynamic business environment *significantly affects the relationship between organisational culture and non-financial performance of SMEs."*

5.4.1.1 Moderating role of dynamic business environment in the relationship between entrepreneurial orientation and performance of SMEs

Both H_7 and H_8 focused on the moderating role of BE in the relationship between EO and financial performance of SMEs and the relationship between EO and non-financial performance of SMEs, respectively. Based on the obtained results, H_7 was only accepted on the significance level of 10%. Meanwhile, H_8 was accepted on the significance level of 5%. The relationship between EO and performance of SMEs was found negative, which was in line with the reported results of past studies, such as the study by (Muthuvelayutham & Jeyakodeeswari, 2014) in the context of India. A non-supportive BE can be damaging due to the innovativeness of SMEs in Pakistan. Unsurprisingly, the BE in Pakistan is acknowledged as unfavourable (Wu, 2009). It is a challenge for SMEs to acquire critical resources and obtain high-risk business opportunities in an unsupportive BE. Nevertheless, BE negatively strengthens the relationship of EO with the financial and non-financial performance of SMEs.

5.4.1.2 Moderating role of dynamic business environment in the relationship between e-commerce adoption and performance of SMEs

Meanwhile, H_9 and H_{10} were furnished to assess the moderating role of BE in the relationship between ECA and SME performance (financial and non-financial respectively). The present study obtained adequate evidence to support H_9, where BE was found to moderate the relationship between ECA and the financial SME performance significantly. However, BE was found to exhibit insignificant moderating impact on the relationship between ECA and the non-financial SME performance resulting in rejection of H_{10}. Furthermore, the results indicated a negative relationship between ECA and financial SME performance, which reaffirmed the lack of ability for the Pakistani BE in supporting the growth of SMEs. (Prajogo & Oke, 2016) also

reported similar results on the moderating impact of BE on the relationship between ECA and the financial performance of SMEs. On the other hand, the insignificant impact of BE on the relationship between ECA and the non-financial performance of SMEs may be related to the challenges among the employees of SMEs to improve the non-financial SME performance. (Mahwish & Abasyn, 2017) also reported similar results and highlighted the challenging business environment of the country for SMEs.

5.4.1.3 Moderating role of dynamic business environment in the relationship between organisational culture and performance of SMEs

H11 and H12 concentrated on the moderating position of BE in the relationship between OC and SME financial results, and the relationship between OC and non-financial SME output. The simulated findings have shown that BE has positively and substantially moderated the interaction between OC and financial SME efficiency, which was compatible with previous studies (Prajogo & Oke, 2016). In this case, H_{11} was supported. On the contrary, the present study did not obtain adequate evidence to support H_{12}. Unexpectedly, BE did not exhibit any significant moderating impact on the relationship between OC and the non-financial SME performance. In other words, there may be an abrupt, unexpected decline in the supportive role of BE in Pakistan for SMEs. This also highlights the challenges to change and adapt the externally acquired knowledge for SMEs in an unsupportive BE.

However, BE, unexpectedly, demonstrated partial significant moderating impact on the relationship between OC and performance of SMEs. This may be plausible considering that technology-oriented firms operate in a highly competitive environment. Hence, it becomes highly challenging for low technology-oriented firms to compete. For example, the cost of conducting business in Pakistan is very high due to the weak

infrastructure, such as electricity, resulting in the production of expensive products of high quality.

In general, a supportive BE encourages SMEs to function more efficiently, improve their ability to be more innovative, and to increase their productivity for sustainable development. On the other hand, a poor BE reducing the opportunities to conduct business activities and decreases the prospects of optimising the country's potential in terms of employment, production, and welfare. The response to such BE differs across organisations, which in this case, SMEs versus large organisations. Large organisations may drop a product or shift from a market to another, but this is not typically possible for SMEs. The options to respond to the environment are restricted by the tangible and intangible resources as well as the opportunities offered by the industry and the environment for SMEs.

Although the present study only reported partially positive findings on the relationship between BE and performance of SMEs, it should be noted that the BE in Pakistan alone presents various challenges for SMEs. The current environment does not provide adequate support for the SMEs to thrive, resulting in higher risks. Consequently, SMEs would be discouraged from developing an optimistic view of the environment due to their assumptions of high risk and vulnerability to the environment. Hence, instead of taking advantage of the environment, SMEs in Pakistan should consider developing a more vigilant, cautious approach. Due to the unfavourable BE, many businesses in Pakistan have shifted their target to the neighbouring countries. For instance, the Pakistani textile sector has migrated to Bangladesh (Anthony Augustine & Paul Ruma, 2011; Owais Jafri, 2012).

Convincingly, based on the available evidence in this study, it is not likely for SMEs in Pakistan to recognise their potentials in an unsupportive BE. The level of environmental munificence may exhibit a stronger impact on the performance of SMEs, only if it provides opportunities, rather than a disadvantage. Therefore, it is essential that SMEs have a good understanding of their capacity and resources in order to effectively and efficiently minimise the adverse implications of BE.

5.5 Contributions and Implications of Study

The factors that influence the performance of SMEs have gained growing interest among the academicians and practitioners, including governments. There were numerous implications of the present study based on the reported empirical findings, particularly on SME performance of SMEs in Pakistani context. These empirical findings were expected to contribute practical, theoretical, and methodological contributions, which are discussed in the following subsections.

5.5.1 Practical contributions

This study empirically established the insignificance of EO in influencing the performance of SMEs. However, conducting business in Pakistan appear to be too risky. Therefore, the owners or managers of SMEs should be aware of EO and other relevant factors that can improve their financial and non-financial performance.

The practical contributions of adopting e-commerce are noteworthy. In fact, the empirical findings of the present study highlighted pertinent insights that benefit the owners or managers of SMEs who are involved in the efforts of incorporating complex technology innovations into the operation of their organisations or expanding their e-commerce applications for higher revenues. Clearly, the empirical findings of this study

were expected to facilitate SMEs in transferring from conventional commerce to e-commerce.

Besides that, the present study demonstrated the importance of management roles in developing countries and highlighted the importance of support from top managers, for adoption, implementation, and operation of e-commerce. The support from the top managing teams is imperative to enhance the influence of ECA. The management should dedicate more resources for quicker e-commerce technologies. The top managers should urge the employees in terms of the commitment and importance of conducting e-commerce operation. Undoubtedly, the motivation and attitude of senior management towards e-commerce technologies will reflect among the staff. Senior management may express their beliefs by being directly involved in various groups, trainings and programs. Additionally, senior management must provide more technical, organizational and fiscal support to promote a conducive environment for e-commerce adoption.

The empirical findings of this study also demonstrated the significance of ECA in influencing SME performance (financial and non-financial). In other words, SMEs with prominent technological resources (e-commerce), are more likely to expand their scope, magnitude, and performance. Therefore, owners or managers of SMEs who intend to improve the performance of SMEs must pay great attention to the e-commerce adoption, strategy development for resource availability and resource alignment and optimisation.

Adding to that, this study also assessed the impact of OC on the SME performance (financial and non-financial). Studies have demonstrated the impact of OC on the different dimensions of performance of SMEs across diverse cultural practices at the

organisational level. Evidently, a strong OC can facilitate the functioning of an organisation and affect the performance of the organisation and employees.

OC supports career progression since employees cannot succeed on their own. Career development initiatives must be employee-driven (rather than employee-exclusive) and supported by OC. Rasool, Kiyani, Aslam, Akram, and Rajput (2012), highlighted the need for owners or managers to possess the knowledge of their employees and support career development initiatives and training with respect to the employees' goals. Rasool et al. (2012), also concluded the important role of OC in the career advancement of employees. Employees would adopt these organisational values and contribute towards the improvement of the performance of the organisation, particularly in terms of profit and loss statement of the business. Organisational value systems and norms are powerful determinants for career progression. This study proved OC as a powerful element that shapes the employees' working environment, work relationship and work process.

The BE in Pakistan is clearly unfavourable, particularly in terms of the support services, infrastructure, and other regulatory bodies. The owners or managers of SMEs are likely to take high risks when they perceive the BE as favourable. This suggests the influence of BE on the performance of SMEs. Therefore, it is deemed imperative that the government and relevant policymakers consider the significance of BE and create an enabling environment for SMEs to operate. In other words, they should create and establish an environment that encourages entrepreneurial culture for the owners or managers of SMEs to invest in Pakistan's textile sector.

Policy-makers in textile industry (Top Management of Firms), Minister of textile, All Pakistan Textile Exporters and Manufacturers Association (APTEMA), Small Median

Enterprises Development Authority (SMEDA), Govt of Pakistan can take help to improve the performance of textile sector to improve textile exports of Pakistan. Which will helpful for enhancement for betterment of textile sector of Pakistan and also foreign exchange reserves of Pakistan through increasing the textile exports of Pakistan. Because Textile exports are highest source of earning foreign exchange reserves.

5.5.2 Theoretical contributions

This study provided empirical evidence on the hypothesised relationships, specifically the moderating role of BE in the relationships of EO, ECA, and OC with the performance of SMEs in Pakistan. A total of H_1-H_{12} hypotheses were proposed for testing. The obtained results demonstrated support for eight hypotheses.

Several past studies assessed the influence of several factors on the performance of SMEs (Alshamaila, Papagiannidis, & Li, 2013; S. Cohen & Kaimenakis, 2007; Idar & Mahmood, 2011, 2011a; Keskin, 2006; Kropp, Lindsay, & Shoham, 2006; Lechner & Gudmundsson, 2014; Thomas Lumpkin & Dess, 2001; Nikoomaram & Ma'atoofi, 2011; Polat & Mutlu, 2012; Sarker & Palit, 2015; Suliyanto & Rahab, 2012; Van Auken, Madrid-Guijarro, & Garcia-Perez-de-Lema, 2008; H.-K. Wang & Yen, 2012). This is one of those some studies which investigates both dimensions financial & non-financial performances of SMEs as separate dependent variables.

However, the combination of three IVs (EO, ECA, OC), and BE as moderator in a single theoretical model as independent variables that influence the financial and non-financial performance of SMEs has gained little attention. With that, the present study attempted to assess these constructs in a single model and found that ECA and OC to positively affect the financial and non-financial performance of SMEs. The study

successfully extended the knowledge base on the importance of BE in predicting the financial and non-financial performance of SMEs. The obtained results also provided additional empirical support for the research framework that incorporated EO, ECA, OC, and the performance of SMEs. With that, this study also contributed empirical evidence and pertinent insights on the RBV theory, TAM, and contingency theory. In particular, with respect to the RBV theory, EO and OC regarded as part of the critical resources of SMEs.

5.6 Limitations of Study and Recommendations for Future Research

Despite the significant contributions and implications of study, there were several limitations of study. Firstly, common method variance, as a potential problem in behavioural research, was identified as one of the possible limitations of this study (Jarvis, MacKenzie, & Podsakoff, 2003). However, the results of Herman's single factor test (to test the presence of common method bias) in this study revealed that all data were free from common method bias.

Secondly, this study exclusively focused on the LCCI-registered SMEs in Pakistan's textile sector. In other words, LCCI-registered SMEs in other sectors in Pakistan were excluded from the present study. Nevertheless, SMEs in Pakistan share similar characteristics, such as the type of ownership and number of employees. The results may be slightly different in other regions that were not part of this study. Therefore, the obtained findings of this study cannot be generalised to other operating SMEs in other sectors within the country. Additionally, as this study targeted five types of textile SMEs (services and manufacturing, R&D, wholesale, and retail). The scope of this study was limited considering that the different characteristics of SMEs according to the type or sector of business were limited to textile sector. It is recommended for future

research to quantitatively and qualitatively assess the performance of SMEs in other regions of the country and in the sub-sectors.

Thirdly, the nature of the current study was purely quantitative. Hence, the questionnaire survey served as the only instrument used to obtain data. Furthermore, the participating respondents may not be willing to respond or complete the survey correctly. In other words, the responses may not consistently and accurately measure the constructs under study. Therefore, it is recommended for future research to consider both quantitative and qualitative methods to conduct an in-depth assessment of the performance of SMEs in Pakistan.

Furthermore, this study adopted the cross-sectional design for data collection, where the responses of respondents were captured at one specific point in time. Thus, the causal relationships between the variables were not adequately explored and may not reflect long-term behaviours of SMEs (Sekaran & Bougie, 2009). Researchers are encouraged to view the constructs from a longitudinal perspective to further validate the findings from cross-sectional studies.

Last but not least, this study examined the moderating role of BE in the relationships of EO, ECA, and OC with SME performance in Pakistan. The predictor variables assessed were solely confined to SME performance as the criterion variable. Other factors that are part of the strategic resources of SMEs, such as employee orientation, cost orientation, and network orientation are suggested to extend the proposed framework of this study. Researchers are encouraged to broaden the scope of this study configurational approach and incorporate the access to finance as the moderating variable for future research.

The results of this study assist in identifying important common aspects of different activities, developing a more comprehensive typology and corresponding measures of the concept. Researchers are encouraged to assess diverse interactions of various entrepreneurial activities. Additionally, other organizational factors such as leadership style, organizational culture internal mechanisms may be used for a better understanding of the relationship between the latent constructs. It was concluded that results for the relationships of entrepreneurial orientation to SME performance are still inconsistent and it is also suggested to identify the core issues of entrepreneurial orientation.

5.7 Conclusion

The present study primarily aimed to assess the moderating role of BE in the relationships of EO, ECA, and OC with SME performance in Pakistan. The first specific objective of this study was to assess the impact of EO on the SME performance. The study did not find evidence to support this relationship, hence H_1 and H_2 were rejected. The second specific objective of this study was to assess the impact of ECA on SME performance. The study empirically proved the significant relationship between ECA and the SME performance, concluding in accepting H_3 and H_4. The third specific objective of this study was to assess the impact of OC on SME performance. Similarly, the study empirically proved relationship between OC and SME performance, hence H_5 and H_6 were accepted. The fourth objective of this study was to assess the moderating role of BE in the relationships of EO, ECA, and OC with SME performance. In order to achieve this objective, a total of six hypotheses were proposed for testing. The results indicate there is moderating role is played by the dynamic business environment in four hypothesis H_7, H_8, H_9 and H_{11} remaining two indirect

hypotheses (H_{10}, H_{12}) were not accepted in this study. All three-moderating hypothesis with financial performance were accepted and both two rejected moderating hypotheses were with non-financial performance.

Moreover, this study provided practical and theoretical contributions in terms of the impact of EO, ECA, OC, and BE on the performance of SMEs. Considering the identified limitations of this study, several recommendations for future research were proposed in the prior subsection. Conclusively, this study successfully contributed significant implications and extended the existing knowledge base on the performance of SMEs.

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Appendix A(Textile Exports of Pakistan 2003-2018)

Years	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Textile Exports of Pakistan	4.5	6.1	7.1	7.5	7.4	7.2	5.6	7.8	9.1	8.7	13.86	13.59	12.55	12.53	13.61	10.04

Appendix B Common Method Bias Test

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	18.012	31.599	31.599	17.388	30.505	30.505
2	3.775	6.622	38.222			
3	3.058	5.366	43.587			
4	2.451	4.300	47.887			
5	2.380	4.176	52.063			
6	1.848	3.243	55.306			
7	1.711	3.002	58.308			
8	1.533	2.690	60.998			
9	1.425	2.500	63.498			
10	1.340	2.350	65.849			
11	1.189	2.086	67.935			
12	1.071	1.880	69.815			
13	1.028	1.803	71.617			
14	.957	1.679	73.296			
15	.939	1.648	74.944			
16	.893	1.567	76.511			
17	.849	1.490	78.001			
18	.793	1.392	79.393			
19	.715	1.254	80.647			
20	.703	1.233	81.880			
21	.655	1.150	83.030			
22	.624	1.095	84.125			
23	.566	.993	85.118			
24	.555	.974	86.092			
25	.520	.912	87.004			
26	.514	.903	87.907			
27	.477	.837	88.744			
28	.461	.808	89.552			
29	.426	.748	90.300			
30	.412	.722	91.022			
31	.399	.700	91.723			
32	.373	.654	92.376			
33	.360	.631	93.007			
34	.343	.603	93.610			
35	.317	.556	94.166			
36	.293	.515	94.681			

37	.267	.468	95.149				
38	.252	.442	95.591				
39	.249	.437	96.028				
40	.224	.392	96.420				
41	.220	.385	96.806				
42	.200	.351	97.157				
43	.181	.318	97.475				
44	.176	.309	97.784				
45	.166	.291	98.075				
46	.139	.244	98.319				
47	.133	.233	98.552				
48	.120	.210	98.762				
49	.115	.201	98.963				
50	.110	.194	99.157				
51	.098	.172	99.328				
52	.089	.156	99.484				
53	.078	.137	99.622				
54	.067	.117	99.739				
55	.054	.094	99.833				
56	.050	.088	99.921				
57	.045	.079	100.000				

Extraction Method: Principal Axis Factoring.

Appendix C Certificate of Proofreading

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PROFESSIONAL PROOFREADING CERTIFICATE

This document certifies that the material detailed below underwent a thorough proofreading process, and was subsequently improved in terms of English language, grammar, punctuation, spelling, overall styling and quality-of-expression.

Title:

The Study Of Entrepreneurial Orientation, E-Commerce Adoption, Organizational Culture And Business Environment On SME's Performance

Author:

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Affiliation:

[1]University Utara Malaysia

Date Issued: 7th October, 2019

Yours truly,

T. Kanesan

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Appendix D Questioner of Study

Pusat Pendidikan Profesional dan Lanjutan
PROFESSIONAL AND CONTINUING EDUCATION CENTRE
Universiti Utara Malaysia

Dear,

It is my pleasure to inform you that I am conducting a research work for the purpose in ordered to be awarded the PhD degree in Entrepreneurship from School of Business Management, University Utara Malaysia. The title of the study is "**A STUDY OF ENTREPRENEURIAL ORIENTATION, E-COMMERCE ADOPTION, ORGANIZATIONAL CULTURE AND DYNAMIC BUSINESS ENVIRONMENT ON TEXTILE SMES PERFORMANCE IN PAKISTAN**"
I will be thankful, for getting the response from your organization, in results researcher will be able to provide practical implications for the Textile sector SMEs in Pakistan
Thank you for considering participating in my study. This study is being conducted for academic research purposes only. All the responses will be held in strict confidence and anonymity is assured; you and your individual responses cannot be identified in any way in this research by your name.
Thanking for your co-operation,
Researcher,
Ali Abbas (901672)

Section 1 (Demographic)

1. Please estimate the number of employees in the firm?	(1-49) (50-99) (100-149) (150-299) (200-250)
2. What is the type of your firm?	□ Manufacture □ Service
3. Age of firm	□ Less than 5 years □ 6-10 □ 11- Above
4. How many years has your firm been in business?	□ Less than 3 year's □ 3 -7 years □ 7- 15 years □ More than 15 years
5. Your job position in the firm?	□ Owner manager □ Manager

Section 2 (Performance of SMEs)

No	**Questions**	**scales**				
	Financial Performance	1	2	3	4	5
1	Profitability growth of your firm.	1	2	3	4	5
2	Cash flow position of your firm.	1	2	3	4	5
3	Return on investment of your firm.	1	2	3	4	5
4	Inventory turnover of your firm.	1	2	3	4	5
5	Budgeted vs actual remains closer.	1	2	3	4	5
No	**Non-Financial Performance**	**Scales**				
1	Position of Customer satisfaction in your firm.	1	2	3	4	5
2	Product/Service quality of your firm.	1	2	3	4	5

3	Market share growth of your firm.	1	2	3	4	5
4	Increment in Employee efficiency of your firm.	1	2	3	4	5

Section 3 (Entrepreneurial Orientation)

NO	Questions	Scale				
	Risk-taking					
1	In general, the top managers of my firm have strong proclivity for high-risk projects.	1	2	3	4	5
2	In general, the top managers of my firm have A strong proclivity for high-risk projects.	1	2	3	4	5
3	In general, the top managers of my firm believe that Owing to the nature of the environment is best to explore it gradually via timid, incremental behaviour.	1	2	3	4	5
	Pro-activeness	**Scale**				
4	In general, the top managers of my firm favor A strong emphasis on the marketing of tried and true products or services.	1	2	3	4	5
5	In general, the top managers of my firm believe that Owing to the nature of the environment, bold, wide-ranging acts are necessary to achieve the firm's objectives.	1	2	3	4	5
6	When confronted with decision-making situations involving uncertainty, my firm Typically adopts a cautious, 'wait-and-see' posture in order to minimize the probability of making costly decisions.	1	2	3	4	5
	Innovativeness			**Scale**		
7	In general, the top managers of my firm favor A strong emphasis on R&D, technological leadership, and innovations.	1	2	3	4	5
8	How many new lines of products or services has your firm marketed in the past 5 years? Very many new lines of products or services.	1	2	3	4	5
9	How many new lines of products or services has your firm marketed in the past 5 years? Changes in product or service lines have usually been quite dramatic.	1	2	3	4	5

Section 4 (E-commerce adoption)

NO	Questions	Scale				
1	E-commerce has led to the simplification of work routine.	1	2	3	4	5
2	E-commerce has led to reliable business communication.	1	2	3	4	5
3	E-commerce has led to efficient coordination among departments.	1	2	3	4	5
4	E-commerce has improved customer satisfaction.	1	2	3	4	5
5	E-commerce has provided new business opportunities.	1	2	3	4	5

6	E-commerce has led to the development of new products and services.	1	2	3	4	5
7	E-commerce has led to a reduction in operation costs.	1	2	3	4	5
8	E-commerce has led to increased productivity.	1	2	3	4	5
9	E-commerce is compatible with business needs.	1	2	3	4	5
10	It is easy to implement e-commerce.	1	2	3	4	5
11	It is easy to test e-commerce before full implementation.	1	2	3	4	5
12	Positive results of using e-commerce are clearly visible.	1	2	3	4	5

Section 5 (Organizational Culture)

No	Questions	Scale				
1	This organization is a very personal place, is like an extended family, people seem to share things together.	1	2	3	4	5
2	This organization is a very dynamic and entrepreneurial place people are willing to take risk.	1	2	3	4	5
3	This organization is a formalized and structural place established procedure generally govern what people do.	1	2	3	4	5
4	This organization is production orient a major concern is getting the job done, without much personal involvement.	1	2	3	4	5
5	The head of this organization is generally considered to be a mentor, a father or mother figure.	1	2	3	4	5
6	The head of this organization is generally considered to be an entrepreneur, an innovator, or a risk taker.	1	2	3	4	5
7	The head of this organization is generally considered to be a coordinator, an organizer, or an administrator.	1	2	3	4	5
8	The head of this organization is generally considered to be a producer, a hard-driver.	1	2	3	4	5
9	The glue that holds this organization together is loyalty and tradition, commitment to this firm runs high.	1	2	3	4	5
10	The glue that holds this organization together is a commitment to innovation and development, there is an emphasis on being first.	1	2	3	4	5
11	The glue that holds this organization together is formal rules and policies maintaining a smooth-running institution are important here.	1	2	3	4	5
12	The glue that holds this organization together is the emphasis on tasks and goal accomplishment, production orientation is commonly shared.	1	2	3	4	5
13	The organization emphasizes human resources, high cohesion and morale in the organization is important.	1	2	3	4	5

14	This organization emphasizes growth and the acquisition of new resources, the readiness to meet new challenges is important.	1	2	3	4	5
15	This organization emphasizes permanence and stability, efficient, smooth operations are important.	1	2	3	4	5
16	This organization emphasizes competitive actions and achievement, measurable goals are important.	1	2	3	4	5

Section 6 (Business Environment)

No	**Questions**	**scales**				
1	Environmental changes in our market are intense.	1	2	3	4	5
2	Our clients regularly ask for new products and services.	1	2	3	4	5
3	In our market, changes are taking place continuously.	1	2	3	4	5
4	In a year, our market has changed significantly.	1	2	3	4	5
5	In our market, the volumes of products and services to be delivered change fast and often.	1	2	3	4	5
6	Competition in our market is intense.	1	2	3	4	5

Appendix E Normality Test of Variables